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CITY OF SPRINGFIELD

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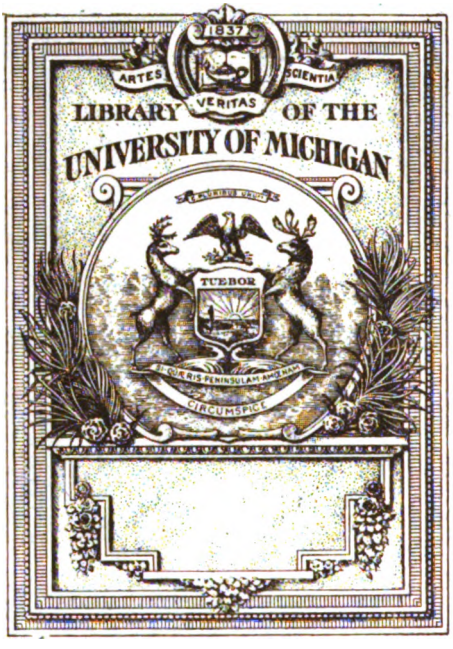

THE GIFT OF
Springfield City Clerk

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Commonwealth of Massachusetts

Springfield, Mass.

MUNICIPAL REGISTER

OF THE

CITY OF SPRINGFIELD

FOR

—1917—

CONTAINING

CITY OFFICERS AND COMMITTEES, MAYOR'S ADDRESS, REPORTS OF THE VARIOUS OFFICERS AND COMMITTEES; ALSO, THE RECEIPTS AND EXPENDITURES FOR THE FISCAL YEAR ENDING NOVEMBER 30, 1916.

PRESS OF
SPRINGFIELD PRINTING AND BINDING COMPANY,
SPRINGFIELD, MASS.
1917.

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CITY OFFICERS

FOR 1917

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CITY OFFICERS FOR 1917

Mayor

FRANK E. STACY

Aldermen

GILES BLAGUE, President

Ward 1: JOHN J. LESTER
Ward 2: ALBERT P. HARE
Ward 3: NELSON W. HASKELL
Ward 4: ROBERT P. MARSH
Ward 5: SAMUEL C. HALL
Ward 6: HENRY MARTENS
Ward 7: HENRY H. CASWELL
Ward 8: GILES BLAGUE

ELIJAH A. NEWELL, Clerk

Common Councilmen

ALBERT D. SHAW, President

Ward 1: C. BURTON GIBBS, LAWRENCE P. GRIFFIN
Ward 2: WILLIAM H. GRADY, JOHN R. DOYLE, JOHN A. FITZGERALD
Ward 3: FRED A. MORRILL, HAROLD P. SMALL
Ward 4: ALBERT D. SHAW, JAMES P. SMITH
Ward 5: SETH H. BARLOW, CHRISTOPHER G. SIMPSON
Ward 6: AMBROSE H. REYNOLDS, MELVIN D. SOUTHWORTH
Ward 7: ALFRED H. CHAPIN, ARTHUR G. TAYLOR
Ward 8: G. CLARENCE A. FULLER, ARTHUR ALFRED BETH, GEORGE H. DECKER

GEORGE J. CLARK, Clerk

STANDING COMMITTEES OF THE CITY COUNCIL.

COMMITTEES OF THE BOARD OF ALDERMEN.

Enrollment—Aldermen Hare, Martens and Caswell.
Elections and Returns—Aldermen Marsh, Lester and Martens.
Ordinances—Aldermen Haskell, Blague and Hall.
Poles and Wires—Aldermen Caswell, Hare and Marsh.
Itinerant Venders' Licenses—The Mayor and Aldermen Marsh and Blague.
State and Military Aid—The Mayor and Aldermen Haskell and Lester.
Rules of the Road—Aldermen Haskell, Caswell and Marsh.

COMMITTEES OF THE COMMON COUNCIL.

Ordinances—Councilmen Morrill, Gibbs and Reynolds.
Enrollment—Councilmen Doyle, Small and Beth.
Elections and Returns—Councilmen Decker, Smith and Fitzgerald.

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JOINT STANDING COMMITTEES.

Finance—The Mayor, Alderman Hall, the President of the Common Council, and Councilmen Barlow and Griffin.

City Property—Aldermen Hare and Lester, Councilmen Grady, Morrill and Simpson.

Fire Department—Aldermen Martens and Haskell, Councilmen Reynolds, Decker and Taylor.

Pauper Department—Aldermen Haskell and Hall, Councilmen Gibbs, Decker and Fitzgerald.

Printing—The Mayor, President of the Common Council and Councilman Southworth.

Board on Claims—The Mayor, Alderman Hall, and the President of the Common Council.

Supervisors of the Department of Streets and Engineering—The Mayor, Alderman Caswell and Councilman Fuller.

Firearms—Aldermen Hare and Marsh, Councilmen Smith, Beth and Fitzgerald.

Revision of Ordinances—Aldermen Marsh and Haskell, Councilmen Small, Southworth and Doyle.

Mayor's Messages—Aldermen Blague and Marsh, Councilmen Chapin, Reynolds and Taylor.

City Realty—Aldermen Haskell and Lester, Councilmen Doyle, Smith and Beth.

Signs—Alderman Haskell, Councilmen Doyle and Small.

CITY CLERK—Elijah A. Newell.

ASSISTANT CITY CLERK—Annie H. Hawkes.

CLERICAL ASSISTANTS—Clifford F. Smith, Cora B. Haskell, Carrie M. Riley, Ida M. Sword, Agnes P. Sheehan, Alice E. Weymouth.

CITY TREASURER—Eliphalet T. Tifft.

TREASURER'S DEPUTY—John P. Bishop.

CLERICAL ASSISTANTS—George W. Rice, Jr., Margaret E. McCaughan, Mildred J. Ward, Gertrude F. Little.

CITY AUDITOR—William G. McIntyre.

CLERICAL ASSISTANTS—Clifford E. Cook, Edward E. Goodell, Alice E. Hathaway, Isabelle Hicks, Gertrude Rowland.

CITY COLLECTOR—Charles A. Frazer.

COLLECTOR'S CLERK—Ralph L. Munn.

CLERICAL ASSISTANTS—Fannie M. Brown, Rena E. Bradley, Frederic W. Day, Leone C. Johnson, Flora S. Allbe, Marion E. Carman, Hazel M. Berard.

ASSESSORS—Albert C. Lane, George B. Smith, William E. Sanderson.

ASSISTANT ASSESSORS—Charles E. Murray, John W. Holton, Arthur S. Burt, William J. Murphy, Bion T. Wheeler, Frederick H. Dumbleton, Charles S. O'Regan, Frank D. Willard, James J. Griffin, John W. Culver, Albert P. Eaton, Patrick E. Granfield.

CLERICAL ASSISTANTS—Catherine T. Leonard, Mary R. Smith, Mabel C. Bemis, A. Evelyn Jewell, Minnie L. Barrett, Beuna V. Barrett.

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OVERSEERS OF THE POOR—The Mayor, Dr. William J. Leonard, Arthur A. Call, Henry P. Norris, William R. Thacker.

AGENT—Edward I. White.

CLERK AND BOOKKEEPER—Jennie S. Lombard.

CLERICAL ASSISTANTS—Mary M. Doubleday, Charles H. Carey, Sarah D. Beal, Fanny E. Frost.

WELFARE NURSE—Mary D. Otis.

SUPERINTENDENT OF ALMSHOUSE—Lyman W. Sexton.

CITY PHYSICIAN—Dr. William J. Leonard.

CITY SOLICITOR—Charles H. Beckwith.

ASSISTANT CITY SOLICITOR—Raymond A. Bidwell.

CITY PROSECUTING ATTORNEY—Josiah Dearborn.

MAYOR'S CLERK—Elizabeth H. Clark.

SUPERINTENDENT OF MUNICIPAL GROUP—Stephen P. Burns.

ASSISTANT SUPERINTENDENT—Geo. M. Blair.

CITY MESSENGER—James H. Lay.

SUPERINTENDENT OF THE DEPARTMENT OF STREETS AND ENGINEERING—Fred H. Clark.

DEPUTY SUPERINTENDENT OF STREETS—Arthur H. Woodward.

DEPUTY SUPERINTENDENT OF SEWERS—Howard O. Buck.

DEPUTY SUPERINTENDENT OF STREET LIGHTING—William E. Hodge.

DEPUTY CITY ENGINEER—Charles M. Slocum.

DEPUTY CITY FORESTER—J. Alden Davis.

DEPUTY SUPERINTENDENT OF ASHES AND GARBAGE—Edward G. Barnes.

CLERK AND BOOKKEEPER—Charles G. Neidel.

BOARD OF HEALTH—Dr. Edgar H. Guild, Health Physician, Dr. T. F. Rearden, Chairman, and Philip V. Erard.

AGENT AND CLERK OF THE BOARD OF HEALTH—William L. Young.

CLERK FOR AGENT—Grace E. Warren.

OFFICE CLERK—Mary E. MacDonnell.

SANITARY INSPECTORS—Jacob R. Sackett, Wm. J. Hassett, Henry Wright, Jr., Alger P. Blaine, Wm. F. Boyle and Daniel J. Mahoney.

SMOKE INSPECTOR—Dustin L. Tice.

SUPERINTENDENT OF SCHOOLS—James H. Van Sickle.

SUPERINTENDENT'S CLERK—Fred L. Ward.

SCHOOLHOUSE AGENT—Hiram L. Dorman.

SCHOOL COMMITTEE—The Mayor; at large, Newton M. Hall; Ward One, Wayland V. James; Ward Two, Henry L. Hirsch; Ward Three, Ralph B. Ober; Ward Four, Edward M. Porter; Ward Five, Florence Clark; Ward Six, Frederick Harris; Ward Seven, Franklin A. Latimer; Ward Eight, George H. Howard.

TRUANT OFFICER—John A. Parker.

ASSISTANT TRUANT OFFICERS—Harry A. Killmer, Burdette R. Madison.

SEALER OF WEIGHTS AND MEASURES—James L. Bowen.

DEPUTY SEALERS OF WEIGHTS AND MEASURES—Adelbert R. Geer, Ralph H. O'Malley.

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INSPECTOR OF MILK—Stephen C. Downs.
ASSISTANT INSPECTOR OF MILK—Fred L. Robertson.
INSPECTOR OF VINEGAR—Stephen C. Downs.
INSPECTOR OF ANIMALS—Harry Lukes.
INSPECTOR OF PETROLEUM—George H. Powers.
SUPERVISOR OF SOLDIERS' AND SAILORS' GRAVES—Marcus M. Fisk.
BUILDING COMMISSIONER—Fred W. Lumis.
BUILDING INSPECTORS—Daniel W. Campbell, Leigh Ferry Morgan.
PLUMBING INSPECTOR—Frank W. Tower.
ASSISTANT PLUMBING INSPECTOR—Ernest G. Bates.
INSPECTOR OF GAS FITTING—Fred A. Bicknell.
INSPECTOR OF WIRES WITHIN BUILDINGS—Allen W. Hopkins.
ASSISTANT INSPECTORS OF WIRES WITHIN BUILDINGS—John F. Shea, Wilbur Chauncey Field.
INSPECTOR OF ELEVATORS—Charles H. Sibley.
CLERK OF BUILDING DEPARTMENT—Alice Ferguson.
BOARD OF APPEAL—George C. Gardner, Thomas J. O'Brien, Daniel W. Mellen.
INSPECTOR OF COAL AND COKE—James L. Bowen.
FISH WARDEN—James P. Hatch.
WATER COMMISSIONERS—The Mayor, Edwin A. Blodgett, Charles H. Mulligan.
CHIEF ENGINEER OF WATER WORKS—Elbert E. Lochridge.
SUPERINTENDENT OF WATER WORKS—A. E. Martin.
WATER REGISTRAR—Alfred R. Hathaway.
BOARD OF PUBLIC WORKS—Claudius C. Margerum, Frank G. Tobey, Napoleon E. Russell.
BOARD OF REGISTRARS OF VOTERS—John W. Nolan, Stephen F. Bible, Warren P. Underwood, E. A. Newell, Clerk.
ASSISTANT REGISTRARS OF VOTERS—Ralph W. Bartlett, Edwin R. Spaulding.
CLERICAL ASSISTANTS—Edith M. Ware, Julia A. O'Brien.
FIRE COMMISSIONERS—Wm. W. Tapley, Charles B. Hitchcock, Patrick H. Quinn, Edwards O. Davis, Henry Martens.
ENGINEERS OF THE FIRE DEPARTMENT—Chief, William H. Daggett; Deputy Chief, Everett A. Kimball; District Chiefs, Burton Steere, John R. Graves; Superintendent of Fire Alarm, Samuel L. Wheeler.
PARK COMMISSIONERS—Stanhope E. Blunt, Nathan D. Bill, Theodor R. Geisel, Dr. Andrew J. Flanagan, Newrie D. Winter.
HONORARY PARK COMMISSIONER—Daniel J. Marsh.
PARK SUPERINTENDENT—Charles E. Ladd.
COMMISSIONERS OF SINKING FUNDS—Robert O. Morris, A. B. Wallace, A. Willard Damon.
LICENSE COMMISSIONERS—George G. Tait, John H. Clune, Hugh J. Donnelly.
CITY PLANNING COMMISSION—Mayor, ex officio; Charles H. Parsons, Stanford L. Haynes, Kurt R. Sternberg, William M. Stevenson, J. Frank Drake, Giles Blague, Albert D. Shaw.

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POLICE DEPARTMENT.

POLICE COMMISSIONERS—Daniel J. Brown, M.D., Charles F. Spellman, Joseph G. Roy.

CHIEF OF POLICE—William J. Quilty.

DEPUTY CHIEF OF POLICE—John H. Boyle.

CHIEF INSPECTOR—Frank W. Quilty.

CAPTAINS—Henry M. Perkins, Martin P. Costello.

INSPECTORS—John St. Ledger, James T. Raiche, James M. Daly, Walter L. Henderson, George H. Norris, Edward J. Rathbun, James C. Burke, Daniel F. McCarthy.

LIEUTENANTS—Charles A. Wade, Michael J. O'Brien.

SERGEANTS—Patrick H. McDonald, Frederick L. Thayer, Edgar A. Littlefield, Michael Kennedy, Daniel J. Twohig, John L. Maloney, Harley H. Blodgett.

MATRONS—Mrs. Maria E. Holley, Mrs. Delia E. Flanagan.

POLICE OFFICERS.

NIGHT AND DAY WATCHMEN.

John H. Dunleavy,
James W. Murtagh,
Michael C. Quinlivan,
Charles H. O'Connell,
Ward E. Maranville,
Albert H. Shaw,
James J. Donovan,
Edward P. Tilton,
John A. Swift,
Michael F. Egan,
Patrick O'Keefe,
Andrew J. Melaney,
Albert F. Ward,
Simon J. Connery,
Ovila L. Huot,
William J. Grady,
Timothy J. Hallahan,
Charles W. Geary,
John F. Bacon,
Ernest P. Marble,
James F. Dagnan,
Alexander Gray,
Edwin C. Holbrook,
Charles H. Hatfield,
Patrick Lynch,
John P. Sullivan,
Patrick J. O'Connor,
Frederick J. Runnells,
Marshall A. Belmer,
William J. Hurley,
Llewellyn D. Carey,
William F. Goldrick,
Michael F. Sullivan,
Joseph D. Powers,
Edward Carey,
Horace G. Clark,
Aime L. J. Letendre,
Frederick P. Smith,
George F. Russell,
Joseph A. Murphy,
James A. Dowling,
James H. O'Brien,
John McNeil,
Durham N. Pepin,
Thomas B. Drinan,
Clarence E. Bradway,
James J. Collins,
Bernard J. F. Bergren,
Peter H. Walsh,
John F. Donoghue,
William S. Bates,
John LaFond,
Patrick J. Fenton,
Frederick J. Sevigne,
Alfred H. Penfield,
Robert Rennison,
John A. Hamberg,
Myron H. Bullard,
John A. Driscoll,
Charles Martens,
Perley J. Hewey,
William J. Hogan,
John F. Carlton,
Ernest C. Smith,
James F. Mullins,
George E. Lynch,
Michael J. Flannery,
Howard F. Tourtellotte,
John G. Flynn,
Edward J. Slattery,
Michael J. Curley,
Arthur H. Carrigg,
Jeremiah B. O'Leary,
Charles Hanlon,
John Hayes,
Patrick J. Keane,
Thomas F. Connery,
Louis H. Pilon,

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Eugene F. Kelleher,
James P. Gray,
Thomas L. Kavanaugh,
Mathew P. Ryan,
William F. Lonergan,
Patrick B. Sullivan,
James J. Moylan,
Thomas A. Kennefick,
John W. Unwin,
James W. O'Keefe,
John H..St. Ledger,
Matthew J. Meade,
William G. Dale,
John B. Carrigg,
Peter J. Marra,
Frederick Cullen,
Thomas C. Fleming,
John C. Driscoll,
Cornelius P. Brosnan,
Charles C. Learned,
Antonio Forni,
Michael J. O'Brien,
Lovell S. Spaulding,
John J. Maloney,
Arthur E. Clifford,
Edward D. Pepin,
Fred A. Champous,
Raymond C. Vining,
Ralph J. Carleton,
John J. Donlin,
Ernest C. LaFleur,
James W. Pease,
Edward J. Costello,
Owen C. V. Sloan,
John H. McDonald,
George N. Riley,
John F. Hurley,
Harry R. Button,
James F. Wood,
Lyman B. Bullock,
Ward C. Maranville,
John J. Crowley,
John P. Driscoll,
Arthur H. Parker,
Thomas Moriarty,
James B. Kemple,
Timothy H. Brodrick, Jr.,
Thomas F. Murphy,
William F. Edmonds,
Raymond J. Hannon,
George F. Henry, Jr.,
James G. Taylor,
Daniel J. Sullivan,
Cornelius F. Dowd,
Daniel J. Long,
Albert J. Tessier,
Raymond F. Connelly,
Thomas F. French,
Frank J. McNeill,
Peter McLelland,
John J. Long,
John F. Hedden,
Philip E. Burke,
Neil Bryson,
Mitchel Frappier,
Montague R. Marsh,
C. Pantasides,
Ellsworth C. Myers,
Edward F. Cullinan,
Harry O. Webster,
Charles D. Feustel,
Ernest Raymond,
Llewellyn Gray,
Charles J. Murphy,
John P. Cleary,
John P. Fleming,
Louis C. Miller,
James J. Scanlon,
Charles G. O'Malley,
Lawrence V. Malone,
Patrick Lovett,
Michael F. Clancy.

RESERVEMEN.

Fred H. Vebber,
Edward J. Sevigne,
Charles L. Dolan,
Charles M. Feeney,
John Lamondia,
Rolla C. King,
John W. Harrington,
Edward L. Keating,
William J. Wall,
Louis H. Hall,
Timothy F. Bailey,
Jeremiah A. Sullivan,
Paul H. Rice,
Patrick M. Hurley,
Timothy F. Maloney
Patrick H. Meleady,
Edgar P. Tanguay.

SPECIAL OFFICERS.

William H. Adams,
Chester W. Allen,
Henry P. Anderton,
Theodore C. Baggs,
Fred L. Baker,
Nicholas J. Baker,
W. F. Bardwell,
George M. Barker,
George W. Barnes,
John H. Barnes,
Joseph E. Barnes,
James J. Baron,
Raymond A. Bartlett,
Joseph E. Bates,
Hiram A. Beach,
J. A. Beers,
Thomas H. Benton,
Barney Bergman,
Charles R. Berryman,
Rodman Besse,
Chas. J. Best,
Fred I. Bizelle,
Alger P. Blaine,
Frank A. Blanchard,
William F. Boyle,
Fred H. Brockney,
George B. Brooks,
Archibald Brown,
Clinton R. Bruce,
Harold E. Bryant,
David H. Bufton,
Clifford S. F. Burns,
W. J. Callahan,

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Arthur A. Carpenter,
George W. Carpenter,
Thos. H. Cartmill,
Orrin G. Cash,
Thos. W. Cashman,
John J. Cawley,
Nelson W. Chaffee,
Philip Cohn,
George Collins,
Albert P. Cross,
John J. Connor,
Herbert C. Cook,
Patrick Courtney,
Thomas Crane,
James J. Crowe,
Michael J. Crowley,
Antonio Dantono,
Michael J. Davis,
Charles L. Dean,
George Demars,
Joseph L. Devens,
A. J. Dion,
Joseph E. Dion,
Angelo DiPalma,
John H. Donnelly,
James A. Donoghue,
Matthew J. Donovan,
Albert N. Dorion,
McClellan Dow,
Patrick L. Dowd,
George Dubbrin,
Frederick A. DuBois,
Chas. H. Dustin,
Walter R. Eastman,
Ralph W. Ellis, Jr.,
Carl L. Farmer,
Wm. Faulkner,
L. J. Fennyery,
Michael A. Feustel,
Warren S. Fielding,
Arthur Flebotte,
Harry D. Foley,
Howard G. Fox,
Roscoe C. Franklin,
Chas. Fredricks,
Albert W. Gates,
Wm. A. Gaunt,
Clarence E. Gasner,
Harry E. Gibbs,
Henry Glickman,
Arthur E. Gordon,
Wm. H. Grady,
Frank W. Grout,
Clarence R. Hall,
Wm. J. Hanifin,
Michael J. Harrington,
Wm. J. Hassett,
Wm. Hathaway,
Ralph P. Hayden,
James Healy,
Martin R. Healy,
H. H. Hedges,
Moses P. Henry,
John E. Hickey,
James P. Hillard,
Dennis A. Hogan, Jr.,
H. J. Howard,
Harry J. Howard,
Walter E. Howard,
John Hurley,
Charles Ireland,
James H. Jones,
Hayward C. Joynes,
Joseph H. Julien,
A. E. Keith,
Wm. W. Kimmel,
Harry L. King,
Harry E. Lakin,
Alfred Lancto,
John J. Lee,
Matthew J. Lennon,
H. C. Lombra,
Anthony Lopez,
John D. Low,
Michael D. Lynch,
James H. Lyons,
Daniel J. Mahoney,
Paskil G. Martone,
Adolph L. D'Massey,
Pasquale Mastroni,
William McDonald,
A. S. Miller,
Samuel Mirkin,
Chas. E. Moody,
John Morgan,
Daniel J. Moriarty,
Chas. F. Morse,
George A. Mullany,
John H. Murphy,
Victor J. Murray,
George A. Muse,
John H. Myers,
James M. McKee,
Fred S. Neddo,
John H. Nelson,
Gardner W. Norcross,
Paul J. O'Connor,
John J. O'Donnell,
Michael M. O'Sullivan,
Frank Pagliaro,
Oscar H. Paige,
Antonio Perry,
Royal I. Pike,
Eugene Phaselle,
Alfred N. Porter,
Adrian L. Potter, Jr.,
Robert F. Potter,
Herman Pouliot,
James Francis Powers,
Alex Pringle,
Edward G. Quinlivan,
Sumner W. Rainger,
Thos. Ready,
N. W. Richards,
Cornelius Riley,
Fred E. Ripley,
John J. Risley,
Fred W. Robbins,
Abraham M. Rohrlich,
Frank F. Rolhausen,
Demase Roy,
George P. Roy,
Geo. C. Sampson,
A. Clarke Sargant,
J. A. Sawyer,
Justus A. Schelb,
Chas. A. Sealander,
John J. Searle,
Otto Seiger, Jr.,
Michael Sexton,
Barnett Shapiro,
J. J. Shea,
John J. Sheehan,
James Sinclair,
Homer B. Smith,
Ralph E. Smith,
Charles M. Snow,

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Clifford J. Staples,
Geo. H. Stibbs,
Timothy F. Sullivan,
Forrest F. Swetland,
Geo. Telmosse,
Barney Theriaque,
Eugene L. Thornton,
Dustin A. Tice,
Edmond F. Tillson,
E. P. Townville,
E. H. Trauschke,
Herbert Wallace,
Ralph H. Walsh,
Howard L. Washburn,
Francis M. Waters,
Allen L. Watts,
George Wells,
Andrew J. Whelan,
Samuel L. Wheeler,
Arthur Williams,
James H. Womble,
George H. Wood,
Henry Wright, Jr.,
William J. T. Wright,
Arnold A. Young.

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MAYOR'S ADDRESS.

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MAYOR'S THIRD ADDRESS

Gentlemen of the City Council:

On this, the first day of our municipal year, as well as the calendar year, I extend to you and to all our people the season's greetings, and I trust that 1917 will be a happy and prosperous year for you all.

It is a pleasure to continue my association with so many of you who served in the boards of last year and the year before, and I anticipate no less pleasure in the coming association with the new members who are just entering upon their legislative life in this year's city council.

In compliance with the requirements of the city charter, we meet to-day to organize for the administration of municipal business for the year nineteen hundred and seventeen.

To us has been entrusted the responsibility of governing the city of Springfield for the coming year.

We come together, not as Republicans or Democrats, but as citizens to serve the welfare of our fellow citizens and not partisan ends. The management of the diverse interests of a city of our size is not an easy matter, but if we undertake it in the right spirit most of the real difficulties will yield to watchfulness and care.

We have been selected to protect the rights of the people of this city, to respond to their needs as they arise, and to expend for their benefit the money which we take from them by taxation.

Although the yoke placed upon us is not easy, we shall, I am sure, get the right answer to the problems which are presented to us for solution, if we hold foremost in our minds the fact that we are the trustees and agents of our fellow citizens, that we hold their funds in sacred trust to be expended for their benefit, and that we should be prepared at all times to render an honest account to them concerning the manner of its expenditure.

In so far as possible city business should be conducted upon the same principles as a good business man manages his private concern, and yet those of us who have had experience in municipal government know full well that no municipal corporation can be conducted upon exactly the same principles as one would manage a private corporation.

We shall have many matters before us which will try our judgment

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and test our wisdom, but I have no doubt that the government of our fair city will be found to-day, as it has been in the past, standing for the just and the right. We cannot please all the people in all things, but we can—and I know we will—satisfy the great body of our citizens in endeavoring to uphold the good name of our city and in giving justice and consideration to their many demands. There is a time in the life of every public official when he may be criticised for doing that which is right, that which his conscience approves. When such a time comes, we should meet the matters manfully and with courage. No public man so appeals to the people as the one who has convictions and dares to stand by them in the face of opposition.

The door of the mayor's office swings open with an equal welcome to every man, woman, and child in the city, yet no man or group of men gets a more cordial greeting or attentive hearing than members of the city council who come to talk over city business. If at any time I can be of any service to the members of your respective boards in any matter under consideration, or the executive department may have any facts which will assist you in your deliberations, they will be cheerfully and willingly furnished to the best of my ability. It is my earnest desire, as I feel assured it is yours, to work together during the year with one sole purpose,—the giving to our city the best government possible.

With the assurance then of my desire to co-operate with you, I welcome you to the task ahead. Others have labored here before us, a high standard has been set for public officials by those who have preceded us. Some are retiring this day after several years of faithful service. They deserve the thanks of our people, for their work has been well done.

In order that you may be conversant with the financial condition of the city, before you proceed with the consideration of matters calling for the expenditure of public funds, I recommend a careful perusal of the financial statement which is before you and which I do not deem necessary to read at this time.

FINANCES.

I have jotted down some of the obligations to be financed in 1917 so that they may be fresh in your mind and will not be lost sight of.

Alterations to Emery Street Shop and Storehouse.

Page Boulevard Extension.

Technical High School Addition.

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Washington Street Primary School.
Carew Street Primary School.
Brightwood School Addition.
Chestnut Street School Addition.
School Street Grammar School.
Central High School Gymnasium.
Main Street Widening (South End).
Lyman Street Widening.
Taylor Street Widening.
New Wayfarers' Lodge.
Oakland Street Engine House Reconstruction.
Armory Street Engine House Reconstruction.
Indian Orchard Engine House Reconstruction.
New Mill Street Engine House.
Addition to Police Station.
New Reduction Plant.
Long Hill Street Improvement.
Broadway Extension.
Widening Water Street.

I have estimated that all these will cost approximately $1,378,575. Of course it will be readily seen that some of the projects must lie over. The financing of the additions to Howard Street and Worthington Street Schools, the new Hooker School, Technical High and School Street additional land was provided for last year.

The total unpaid taxes, November 30, 1916, amounted to $759,849.63, against $756,859.87 on the same date the previous year, showing an increase of $2,989.76.

The surplus of $525,380.05 was increased $136,401.38 to a total of $661,781.43.

This surplus is largely represented by the uncollected taxes and the unexpended balances from the various departments at the close of the fiscal year. $500,000 is an ample amount to remain in the surplus account and I shall advise that the sum above that amount be placed to the credit of the 1917 tax levy. The taxpayers are entitled to the unexpended balances of the various departments which for one reason or another were not used in the preceding year. They should go to reduce this year's taxes.

During the past year bonds were issued and sold for the following purposes:—

$100,000 serial water bonds, running one to twenty years, bearing interest at the rate of 3½ per cent.

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$540,000 serial school bonds, running one to twenty years, bearing interest at the rate of 4 per cent.

The water bonds were issued to pay for land and water power damages on the Little River water system; the school bonds for the following purposes:—

Howard Street School, land and building.....	$150,000
Hooker School (new), land and building.....	270,000
Technical High School, additional land.....	120,000

These bonds were sold in November at a premium which brought the rate of interest a little under 3½ per cent, showing that the credit of the city of Springfield is unexcelled.

Herewith is appended a table showing the temporary loans made in anticipation of revenue during 1916. This table is given for the first time in order to show the unusual low rates the city of Springfield obtained, owing to the remarkable market conditions.

Temporary Loans.

Made in Anticipation of Revenue and Paid During the Year.

1915, Dec.	16.	$600,000, due April 7, 1916, Kidder, Peabody & Co., Boston, discounted at.....	1.94%
1916, Feb.	14.	$150,000, due April 4, 1916, Springfield Safe Deposit & Trust Co., discounted at .	0.00%
March	17.	$1,000,000, due November 9, 1916, Estabrook & Co., Boston, discounted at.....	2.83%
July	12.	$600,000, due November 10, 1916, Morgan & Bartlet, New York, discounted at.	3.545%
		$2,350,000.	

The total operations of the City Treasurer for the fiscal year 1916 are summarized as follows:—

Cash Receipts.

From revenue sources.....	$7,253,845.23
From non-revenue sources.....	661,197.22
	$7,915,042.45
Cash balance, Dec. 1, 1915.....	283,740.36
	$8,198,782.81

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Cash Payments.

For revenue purposes	$7,227,141.57	
For non-revenue purposes	286,181.51	
	$7,513,323.08	
Cash balance, Nov. 30, 1916	685,459.73	
	$8,198,782.81	

The Bonded Indebtedness of the City.

Total Water Debt	$2,207,000.00	
Less Sinking Fund	132,719.49	
Net Water Debt		$2,074,280.51
Exempted Debt:—		
River Front	$4,000.00	
Municipal Group Buildings	1,494,000.00	
Dwight and Water Streets Underpasses	548,000.00	
Total Exempted Debt		2,046,000.00
All other Indebtedness	$4,969,400.00	
Less Sinking Funds	1,235,888.00	
Net Debt, exclusive of Water and Exempted Debt		3,733,512.00
Total Net Indebtedness		$7,853,792.51
Increase of Total Net Indebtedness in 1916		156,351.43
Increase in Funded Debt (outside Water Debt)		255,800.00

The following summary shows the purposes for which our bonded debt was created:—

Water Works	$2,207,000
Schoolhouses	3,450,000
Municipal Group and other Public Buildings	2,034,000
Dwight and Water Streets Underpasses	548,000
Street Improvements and Extensions	565,000
Sewers	262,000

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Parks	$152,000
River Front	4,000
	$9,222,400
Sinking Funds	1,368,608
Net Debt	$7,853,792

The following statement shows that the borrowing capacity of the city of Springfield for the coming year is about the same as it was at the close of the last fiscal year. This result was accomplished because the amount of debt incurred was not in excess of the amount of debt that matured and was paid off, plus the increase of our borrowing capacity, which the growth in valuation permitted.

Amount of Debt City can Incur in 1917, within Statutory Limit.

2½ per cent of $188,717,804, average valuation for three preceding years		$4,717,945.10
Bonded debt other than Water Debt	$7,015,400.00	
Less debt exempted by special acts of the legislature	2,046,000.00	
	$4,968,400.00	
Less General Sinking Funds	1,235,888.62	
		3,733,511.38
Debt city can incur in 1917		$984,433.72

The "pay as you go" policy which has been in practice for the past two years is accountable in no small degree for this excellent showing, and should be continued so far as consistent with good business.

It is easy to make expenditures for public improvements and borrow the money to pay the bills. The path of least resistance, as always, has been the path to the money lender. The temptation is this: large expenditures of money obtained on loan orders to be paid in the future do not adversely affect the tax rate of the administration which is responsible for their issuance. The burden falls upon the succeeding years, so that the fundamental defect in the system of paying for improvements by borrowing is that the welfare of the majority affected, that is of posterity, is not consulted.

In all our transactions let us insist upon the expenditure of public

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money for the public good. Let us condemn waste, favoritism, and careless expenditure. The call to-day is for economy in municipal government. Let us practice economy in the administration of our trust but not the economy of the shortsighted and foolish type.

Let us look through the telescope as well as the microscope, and let us favor such expenses as the safety and comfort of our people demand. What they want is service.

SCHOOLS AND SCHOOLHOUSES.

I will make no lengthy comment upon our schools or their history. The record is open for all who care to read it. I will, however, make this general statement. Our public schools are matters of such vital public concern and so intimately connected with good citizenship that I recommend with all the power at my command that all necessary measures be taken to promote their usefulness and efficiency.

Our high schools are doing a great work. Overcrowding there, however, has already commenced. Larger accommodations will be needed in the near future. I urge that immediately preliminary steps be taken towards the enlarging of the Technical building.

I have already touched upon other schoolhouse requirements in the earlier part of this message, so I will not refer to them again at this time. I just want to emphasize the fact that the work must go on to meet the needs of this growing city.

I recommend the establishment of military drill at the high schools, not for the purpose of making soldiers of our young men or of arousing the spirit of militarism, but for the great value which it has in teaching obedience to constituted authority—the one lesson, by the way, which young people are not learning to-day. Nine out of every ten of our young folks dictate to their parents instead of being ruled by them. This lesson of obedience is an important one in our educational system, and learning it makes all the difference between a good citizen and a poor one.

The Peabody fire startled every community and the cry next morning was to tear down all present school buildings and build new ones. The lapse of time and sober thinking have calmed the excited. Nevertheless, it is our duty to see to it that school buildings are safe and that the lives of children are not endangered. In view of this fact and following the report of Fire Chief William H. Daggett and his deputies, who made an inspection of the school buildings to determine the nature and extent of fire hazards, I requested the City Property Committee,

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Schoolhouse Agent Hiram L. Dorman, and State Inspector Ernest E. Cleveland to make an investigation and report. This request was thoroughly carried out, and a detailed report with an estimate of the cost was made for what was considered necessary to save the children from fire and smoke hazard. The recommendations were adopted. Thirty-eight school buildings underwent repairs. Boiler and furnace rooms were isolated from the stairways and adjacent rooms. Self-closing fireproof doors were installed, additional fire extinguishers and self-closing receptacles for paper were placed in all buildings.

In fact, almost every fire prevention provision was carried out with the result that no city in New England can boast of any better schoolhouses in this respect than our own city.

POLICE DEPARTMENT.

Ever willing to accord praise where commendation is deserved, the public to-day is applauding the high standard of efficiency and discipline attained in our Police Department, making it the equal of any police department in New England. This has been brought about through the efforts of the Chief and the Commission, aided by the co-operation of the officers and men, all of whom have aimed for a high standard of conduct in the performance of the duties devolving upon them.

One serious incident occurred during the year. I allude to the strike of the Italian shovelers in this city in the early summer. These strikers marched through our streets frequently and while they violated no law, the police were very patient with them, but at two points in the city on the same day, different bands attempted to assault honest workingmen, and even went to the extent of attacking the police. The response of the police was prompt, sharp, and decisive and the trouble lasted but a few minutes. Three of the strikers were taken to the hospitals, not very seriously wounded, and very shortly afterwards the strike was settled. It was the first experience of the kind in the city of Springfield and I hope it will be the last.

There was also trouble among the Assyrians, engendered by religious differences, in which two men were shot and killed. The murderers were almost immediately arrested and their cases are now before the Superior Court. A representative of the Ottoman Consulate General has made an investigation and has suggested to the Mayor the names of four persons, two representing the Christians and two the Mohammedans, who, in his judgment, could stop any disturbances. They are going to be brought before the Mayor and Chief of Police and plainly

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told that they will be held personally responsible for any future outbreaks.

I also wish to call your attention to an innovation in the patrol service of the department which took effect on the first of June. The department purchased two Ford touring cars for patrol duty in place of the seven horses which the department used as a mounted squad and I wish to make a comparison of the cost of maintaining this unit as compared with the horses. For the six months that the patrol cars have been in service the upkeep has amounted to $946.05. This includes gasoline, oil, tires, and repairs. For the same period last year the cost of maintaining the horses amounted to $1,490. This is a saving to the city of practically $650 for six months. These two cars have each covered a distance of 11,000 miles which is probably four times, if not more, the distance the horses would cover during the same period. This demonstrates a more frequent service, consequently a better service, at practically half the cost of maintenance. There was not alone the saving in the upkeep, but we also saved the services of two men. There were six men in the mounted squad and but four in the two automobiles, so that we might add the salary of two men for six months, which would amount to $1,200. Late last year we purchased an additional Ford car for patrol purposes, which enables us to give increased service and efficiency in the residential districts. Other cities are adopting our method.

The police building is in good condition and barring ordinary repairs will not need any attention. The building ought, however, to be enlarged and I believe that it can be done by the addition of another story over the garage. This would not only provide for the Police Court and its offices but would give the department much needed room. This improvement will do away with building sub-stations and save a good deal of expense. I recommend that an early start be made on this proposition.

Now that everything is settled I recommend that the new police ordinances be considered, passed, and put into operation.

FIRE DEPARTMENT.

Good fortune, good management, and good service have combined to give Springfield a good fire department for the past year.

Of the economic problems of the day, one of the most important is the reduction of fire waste. Everything possible is done to effect the speedy extinguishment of fires, but greater effort must be put forth

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to prevent fires. This is being well recognized, and clean-up days and fire prevention methods are to-day widely advocated.

Last year we completed the motorization of the department. This was done by the purchase of two new motor pumping engines and two new motor driven ladder trucks. We now have thirty-nine motor pieces in the service, a sufficient number to cover our needs, I believe, for some time to come. The greater efficiency of this new type of fire apparatus is unquestioned. The advantage of attacking fires at the earliest possible moment is too evident to be discussed. Gasoline and oil are cheaper than hay and grain, and the standing motor does not have to be continually fed and the floors and stalls constantly repaired.

With the motor question taken care of we can now turn to the fire stations. I believe that steps should be taken immediately and orders passed at the next meeting, if possible, for the remodeling of the Oakland Street, Armory Street, and Indian Orchard stations, and recommend that this work be done. Floors of steel and concrete construction should replace the present wood floors and the houses should be remodeled throughout, so as to afford not only more space for the apparatus but additional rooms and increased bath facilities for the men. The hay and forage lofts and the old stall rooms will afford abundant space to carry out the work.

The contracts should be let at once owing to the condition of the steel and other building material markets. It will take three or four months to get the material and the work should be done during the warm weather, as the apparatus will have to remain out of doors during the reconstruction period.

I believe we can and should erect one new house this year and as in the last two years I believe the Mill Street house has the first call.

DEPARTMENT OF STREETS AND ENGINEERING.

Not more important, by any means, than the Water and School departments, but more noticeable and more in the minds of our citizens, are our highways. This is an era of travel, and the reputation of a city depends very greatly upon the condition of its roads. Next to the duty of making our highways safe for travel in all places, and at all times, comes the duty of maintaining, so far as our means will permit, good trunk lines of streets running into the city from the neighboring communities.

The amount of street construction work accomplished during the past year is the greatest at any time in the city's history for a like period,

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and the character of the work in general is ahead of ordinary street construction.

Permanent pavements have been laid on fourteen streets, a distance of three miles; nineteen streets with bituminous concrete, a distance of three and a quarter miles; and thirty-two streets with bituminous macadam, a distance of six and one quarter miles, which, together with small pieces of other pavements, aggregate fourteen and one half miles of city streets varying in width, but if considered as a state road for purpose of comparison would be twenty-three and one quarter miles.

This work has been accomplished notwithstanding the fact that our department has been seriously handicapped by a shortage of both labor and materials. It is safe to say that no road in Massachusetts has attracted more favorable comment from the traveling public than the new concrete pavement of the Boston Road, completed to the Wilbraham line in October.

Nearly all the main arteries of travel into the city have now been completed, yet there remain Liberty street, Springfield street, Belmont avenue, and Pecousic avenue, which should receive attention the coming season. Liberty street from Carew street to the Chicopee line has seemingly not received the attention the traffic would demand, yet it has not been deemed advisable to make extensive expenditures pending the consideration of the proposed widening. The street is destined to become an important thoroughfare and should be of ample width to accommodate a double car track.

The policy of improving the through traffic diagonal and crosstown streets should be continued, as well as replacing the old macadam in the down-town section with a more modern pavement capable of being flushed, thereby avoiding the constant tracking of dirt on to the smooth paved streets.

I want at this time to publicly thank the public service corporations for their excellent co-operation in carrying out street work. Before commencing any of the operations, all public service corporations were given notice of the streets upon which work was to be done, and requested to complete any work therein that might be contemplated by them at any future time. They have all responded to our request and have extended their services wherever possible upon these streets.

There seems to be an impression that existing conditions, no matter of how long standing, and for which there may be some reason for complaint, should be adjusted at once.

This is particularly true of our streets. Each section, very naturally, perhaps, expects that its wants and needs shall have immediate attention

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regardless of what the other demands may be upon the department, and apparently not realizing that it is both financially and physically impossible to correct all the causes for complaint.

There is no disposition on the part of the city officials to neglect or ignore any particular locality. In fact, I have tried all through the preceding term to make what we have to spend go just as far as it can possibly be made to, for the greatest good of the greatest number, giving ear always to demands or complaints whatever their nature may be.

No money expended by a municipality is more open to the criticism of waste and extravagance than that which is laid out on its highways. The results of money used in this department are so open to the inspection of every citizen, that very often it happens that lack of economy in other public expenditures, not so apparent to the public eye, is overlooked.

It has been my policy to keep very closely in touch with the work of the highway department during the past two years, and the opinion here expressed that last year closed with our streets in excellent condition, is buttressed by the unbiased comments of a large number of citizens who have occasion to make the most use of our highways.

It is clear to any one familiar with conditions on certain unaccepted streets or portions thereof, that these should receive attention from the city just as soon as the abutters comply with the equitable requirements established by state laws and ordinances relative to the preparation of such streets for acceptance. Another thing that the city is to be congratulated on is the fact that the Superintendent is given full authority, free from political pressure, in all the details of the department, such as the direction of the work, the employment of labor, and the purchase of supplies.

The new sidewalk construction has been a large item the past year, and I recommend a continuance of this policy until all of our walks are put in good condition. There are too many damage cases against the city on account of defective sidewalks. Here is an instance where the citizens can co-operate with the city and they should be perfectly willing to do so.

SEWERS.

Immediate steps should be taken to afford relief to the East Springfield section from surface water. Studies to ascertain the most feasible method to accomplish the desired result are now being made by the Engineering Department. The demand for extensions increases with the development of the outlying sections of the city, which extend beyond

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the Connecticut River watershed, thus creating a new problem for the engineer.

FORESTRY.

Few cities are better provided with shade trees, and we should continue our efforts in looking not only to their proper care but to replacements and extensions.

ENGINEERING.

During the past year progress has been made on topographical survey and plans of the city, first attention being given to the East Springfield section and the territory east of Carlisle Brook, in order that the proper data may be had for the design of the extension of the sewerage system, a problem which must receive early attention.

It is desirable that these surveys and plans be pushed to an early completion in order that consideration may be given to the proper development of the large area of the city rapidly being placed on the real estate market.

Steps should be taken to regulate the haphazard practice of real estate owners laying out streets to suit their own convenience and without heed to the probable requirements of the future.

HEALTH DEPARTMENT.

The most noteworthy accomplishment of the board during the year was the establishment of a tuberculosis dispensary in quarters fitted up for the purpose on State street, where a most helpful work has been commenced in advice and treatment for those who are afflicted with tubercular disease. This work should be liberally provided for in the future, and as its benefits become more widely known, the scope of its usefulness will be increased.

The unsettled conditions existing in the milk industry, with continual changes taking place in the sources of the city milk supply, have increased the work of the dairy division.

The additional school nurse provided has been assigned to the public schools in Indian Orchard, and at the present time the primary grades throughout the city have, in addition to the services rendered by the corps of medical inspectors, the constant attendance of four school nurses. The value of medical supervision of school children is well established, and the tendency toward more extensive work in this

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direction is unmistakable, and happily the school authorities are now its most enthusiastic advocates.

Some definite forward movement should be made regarding the establishment of a dental clinic for the benefit of school children. Forty-five per cent of all children attending the public schools have defective teeth, and twenty-five per cent of this number cannot afford to employ a dentist for the more common and essential operations needed to preserve the teeth.

PARK DEPARTMENT.

Our parks are in excellent condition under the management of a body of men in every way qualified to meet the situation. Their work is well done and they give their time unsparingly to our interests. It is a pleasure to commend them.

The importance of breathing places and places of recreation, parks, and playgrounds cannot be overestimated. They are highly essential in any city. Springfield is fortunate in this respect.

Probably no one improvement made during the past year was more needed or more appreciated than the permanent road work at Forest Park. I recommend a liberal appropriation for a continuance of this work this year. The roadway leading through Van Horn Reservoir Park has been graded and covered with cinders; also two new cobble-stone entrances have been built at this park, many of the dead trees have been removed and a systematic trimming of the trees has been started, which when completed will add much to the attractiveness of this beautiful park.

The land now owned by the Water Department adjoining the park should be turned over to the Park Department and the Water Department should be reimbursed. I recommend also that bathing facilities be provided at this park if it is possible.

The northerly line of Long Hill street from Washington boulevard to a point opposite the easterly entrance to the Barney estate has been straightened. The narrow strip of land between the northerly line of this new layout and the property of the abutters was deeded to them by a vote of the city council upon the recommendation of the Park Board. In consideration for this land the abutters regraded Long Hill street at their own expense. When the work is completed it will be a great improvement.

One of the most important improvements planned for the year will be the development of the tract of land on Liberty street, the former home of the late Gurdon Bill, into a park and arboretum. No appro-

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priation will be required for making this improvement, as Mr. Bill left $5,000 for this purpose. His children have added additional land, also the sum of $2,000 to the original gift of their father.

I want again to call your attention to Stearns Square. There should be an appropriation made for improvements, and the square beautified this year.

The land bordering Five Mile Pond now owned by the Water Department should be turned over to the Park Department and the Water Department compensated for the same. It may not be advisable to develop the tract this year, but it will be good business judgment to make a start.

I am still of the opinion that we should look into the question of a natatorium. Swimming is becoming more popular every year. The attendance at both the Watershops and Loon Pond bath houses has increased beyond proportion, proving to my mind that more and more are our citizens and children appreciating the facilities that the city has offered.

Permit me to remind you at this time of the death of Everett H. Barney, which occurred March 31, 1916. Also of the resignation of Daniel J. Marsh as an active member and his appointment as an honorary member of this board. Mr. Marsh was a member of the first Board of Park Commissioners of Springfield, which was established in 1883. Both men did noble work, and Springfield is indeed fortunate to have men of such caliber who are willing to serve their fellow citizens.

WATER DEPARTMENT.

The Little River system has furnished during the past year a plentiful supply of water of satisfactory quality to the city of Springfield and to the suburban towns connected with the system. Consumers in the town of Ludlow have been supplied with a good quality of water from the Ludlow reservoir.

Once again I desire to respectfully and urgently call your attention to the justice, practicability, and "good business" of paying the municipal water works for all water furnished to the various departments. Public spirited citizens have for years served as members of the Water Commission Board, given freely of their time and thought, with no remuneration, and with no other incentive than civic pride and duty. They have been close students of the water system, in its production, its distribution, and its financing, and they all agree that the department is entitled to all its just earnings, should pay all its liabilities, and that

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the actual surplus earnings should go toward the reduction of rates to the consumers. When this is done the rates can be equitably adjusted.

Six suits pending for several years, four for water diversion amounting to $140,000 and two for land taken amounting to $6,950, were settled last year. This unusual amount was taken care of by the proceeds of a $100,000 bond issue (balance of total issue of $350,000 authorized in 1913) plus $18,900 remaining from sale of Bridge street property and $28,050 taken from the cash revenue of 1916. No available funds are now left or authorized for unusual expenditures. The demands for main pipe extensions and improvements were insistent, but only such extensions were made as were absolutely needed.

Additions to supply units will be needed very shortly if the city continues to grow in the next few years as it has in the past. The Franconia section, Boston road, St. James avenue, East Springfield, and many other lesser and scattered sections are already demanding immediate attention.

With the present prices of materials and labor practically one hundred per cent higher than when the Little River system was installed the department faces conditions which will call for large expenditures of money. The different departments should be careful with the use of water so that we can delay construction as long as possible and until the municipal water payment question has been adjusted. For your enlightenment I will state that it has been estimated that the city uses $68,824.35 which the Water Department receives no compensation for. Think it over.

DEPARTMENT OF CHARITIES.

A most efficient and painstaking body of men have conducted the affairs of this department in a manner above criticism.

The total expenditures in 1916 were $92,895.45, and the receipts amounted to $27,348.84. These figures represent the largest receipts and expenditures in the history of the department. With the growth of the city it must be expected that the expenditures will increase, but recent legislation and the increased cost of provisions, clothing, etc., have brought additional burdens. We have been obliged to increase our allowance to all that are in need of aid. The hospitals increased their rates, which brought the amount paid to the various hospitals for 1916 up to $4,576.92.

The first of last May a welfare nurse commenced her duties and I want to publicly commend her for the excellent work that she has done.

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Sufficient time has elapsed to demonstrate that her appointment was a wise move and the work that she is doing is a great benefit both to the department and to the unfortunates to whom she administers. We have been able to have our patients discharged from the hospitals and returned to their homes and our nurse has cared for them. Under former conditions it was impossible to do this. The conditions at the Almshouse are very satisfactory, in fact I have no recommendation to offer for this department. With the exception of the ordinary repairs everything is in excellent shape.

The old Wayfarers' Lodge will have to go this year, and a new one be erected. I propose to carry out the Mill street extension project and have provided a place on land now owned by the city, which I consider is a suitable site for the new Wayfarers' Lodge, and shall ask for an appropriation for its construction.

BUILDING DEPARTMENT.

Notwithstanding the prevailing high cost of all kinds of building material and the great scarcity of labor, the past year—in the number and amount of its building operations—has been recorded as the greatest in the history of the city. Permits for more than seven million dollars' worth of building were issued by the Building Department during the year—an increase of approximately 15 per cent over the record for last year.

The city itself has expended $398,211 for its own buildings. Practically all of this amount has been used in remodeling its old school buildings and building new ones.

Among the buildings for which permits have been granted are 11 factories, 331 garages, 70 tenement houses, 182 two-family houses, and 357 single houses.

The number of one-family houses erected in 1916 exceeds the record for 1915 by 40 per cent, and that of any previous year by more than 100 per cent. This is most gratifying. To live in one's own house, to own a bit of ground—this is the ideal for which we are all striving.

With the substantial increase in the number of building operations go the responsibilities and obligations of a comprehensive system of inspection and enforcement of the laws.

We have the best Building Department in the state and it is no longer looked upon as a criticising and retarding agency, but as a constructive and helpful influence in the building operations of the city.

There is just one recommendation I have to offer: I would add a

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sub-department, that of supervision of the construction of all public buildings and the passing on and approval of all plans submitted. We now have a building inspector and his assistants who are experts and well qualified for this work. Worcester is far ahead of us in this respect. They have as superintendent of public buildings a high grade architect. The architects selected are paid 3 per cent for their plans, the city does the supervising. As a comparison take the Hooker School; Worcester would have paid 3 per cent or $6,045.51, supervision would have cost nothing. Springfield has already agreed to pay $18,884.27, making a difference of $12,838.76.

We have enough construction work in contemplation to warrant adding this department and I know that it will save the city thousands of dollars.

Another matter that I desire to call your attention to—we must not allow State Rule to succeed the Home Rule that we now enjoy relating to building laws. There is an attempt to wrest this work from the municipalities and to turn it over to state authorities. This should not be permitted.

LAW DEPARTMENT.

I recommend that you give serious consideration to the advisability of amending the ordinance which provides that the city solicitor shall be appointed by the mayor so that it will provide that he shall be elected by the city council. I believe that such a change is advisable.

It has been the theory in Springfield that the city solicitor should be appointed by the mayor because he was supposed to be the personal adviser of the mayor not only in matters of law but in matters of policy. There is no particular reason why this should be so. The city solicitor is the official legal adviser of all of the officers, boards, and commissions of the city and of the city council and its committees, just as much as he is official legal adviser of the mayor.

The reason why I recommend the change is that I believe that it would lead to a longer term of service on the part of the city solicitor and that this would be for the city's interest. In the city of Worcester the city solicitor is elected by the city council and they have had but two city solicitors in twenty-two years and that one vacancy was caused by the resignation of the incumbent to accept an appointment to the Supreme Judicial Court of Massachusetts. In the same length of time Springfield has had eleven city solicitors, and of these but two have resigned. The two city solicitors whom the city of Worcester has had in the last twenty years came to be considered leading experts on Massa-

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chusetts municipal law. It is no discredit to the eleven city solicitors whom this city has had in this same period that none of them have earned such a reputation. Municipal law is a good deal of a specialty, and none of our last eleven city solicitors has been retained in office long enough to enjoy sufficient experience to make him anywhere near as expert as the Worcester city solicitors whom I have referred to.

I do not believe that it is any more necessary to change our city solicitors every two or three years than it is to change our city collector or city auditor, and I believe that the same reasons apply in both cases for retaining the same man from year to year provided, of course, the proper man be selected.

I believe that if the city solicitor were elected by the city council we should probably enjoy the advantages of longer terms. Certainly we have given the other method a trial and it has failed to produce such a result.

I therefore recommend that the city ordinance be so amended as to provide that the city solicitor shall be elected by the city council in the month of January, 1918, for a period of two years. This will bring the election of the city solicitor by the city council in the off years when no mayor is chosen and I believe will have a wholesome tendency to remove the question of the selection of city solicitor from baleful controversial political influences.

AUDITING DEPARTMENT.

A new system of budget-making and accounting presented by the auditor and bearing the endorsement of the state officials and other accounting experts was adopted last year and the same will be in operation for the coming year. Without casting reflection on our present auditor, a man for whom I have the highest regard both as to his integrity and ability, and with the advice of the finance committee, I had two expert accountants, who were in no way connected, go over the system and they reported as I expected, that it would be a step backward to go back to the old system.

Receipts and payments are classified in detail. This will be especially beneficial for comparative purposes in making up future budgets and will enable the mayor and city council to more clearly understand the various items of the budget.

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CITY CHARTER.

The legislature of 1916 by special enactment gave Springfield a chance to select, if it was so desired, a new form of charter. The citizens, however, by a very substantial vote, decided against the two so-called "improved" forms proposed. There were many commendable features in the suggested forms of government presented in the act, but there were also many objectionable ones.

Prior to the recent campaign a thorough inspection was made and the spotlight turned on every department and its work. The microscope was freely used and as nothing of importance was urged against the departments by those who were looking for something to criticise, I assume that they found matters in fairly good condition.

Our present charter doubtless has imperfections but it is generally found to be a workable one, and our government under it has been remarkably free from criticism. However, the watchword should always be "improvement," and for that we should in every way strive.

I therefore recommend that a special committee be appointed at once to go into the question of charter revision and report at an early date, so that a bill for amendments to the charter may be presented to the incoming legislature. May I add in closing this subject, in view of some of the statements made during the recent charter campaign, that if people would only discard caustic and irresponsible flings at public officers and public matters and would substitute sensible suggestions, as a better and more patriotic practice, it would prove helpful to such officers and would add greatly to the efficiency of the public service. Municipal service needs a more intimate relationship and co-operation between the city and the people. The more the city and the people work together, the better the city government in all its functions.

PUBLIC MARKETS.

Under Chapter 119 of the Acts of 1915, Section 1, cities and towns having a population of 10,000 and more are authorized to provide and maintain public markets with suitable buildings and grounds. Section 2 provides that all such cities and towns which do not maintain public markets under the provisions of Section 1 shall within one year of March 30, 1915, designate one or more streets or squares or parts thereof or other public places, which shall be suitably situated and which shall be approved by the State Board of Agriculture, to be used by farmers and other persons as public markets. We must, therefore, at least set

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aside a place or places where the farmers from outlying districts can bring in their produce for sale. Just how far we shall go and how elaborate a system we shall install is for you to say. I touched upon this subject last year; now I recommend that some action be taken. I feel sure that the Springfield Board of Trade will co-operate and, if desired, a Citizens' Committee to work in conjunction with a City Council Committee will be named by them.

The whole matter of public markets is an attempt to solve the food problem on a basis of a better system of marketing and a more economic method or system of distribution of food from producer to consumer.

BOARD OF TRADE.

The Springfield Board of Trade stands at the threshold of a new period of greater power and activity. I cannot speak too strongly my approval of the action of President Page and his fellow members for their efforts to make the board a real live one. Their action at the last meeting in inviting the mayor and the presidents of both boards to bring before the board at all their executive meetings the projects for which the city desires approval and support is a start in the right direction, and it shows that the board is thoroughly awake and eager to do things for our city. Business can be brought here and the work of this board is cut out to get it here and to stimulate its growth.

The city's interests are closely identified with those of the Springfield Board of Trade, and any help the mayor can give the board in its increased activities will be rendered with the utmost willingness.

MISCELLANEOUS.

The city ordinances were last revised and codified in 1904. Three years ago a start was made on re-codification but work was halted on account of the charter revision agitation. Now that that question is settled, work should go ahead immediately. I hope the committee appointed will attend to this work and bring in an early report as we are sadly in need of the revised ordinances.

Springfield has a transportation problem on its hands. How shall it be solved? The Springfield Street Railway Company have engaged experts and have promised the mayor a copy of their findings. We shall anxiously await the same and may have some recommendations to make.

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The introduction of the automobile and the jitney into everyday life has brought about conditions which are exceedingly dangerous. The situation must be met. I am still firmly of the opinion that there should be more supervision over the autos and the jitneys in the city. I wish you would consider the advisability of a parking zone, say from the arch to State street and from the river to Chestnut street.

There should be a foot passenger bridge constructed on the Boston and Albany Railroad bridge on St. James avenue.

The old hose house on Mill River lane, now not in use, could be repaired at a small expense and turned over to the Veteran Firemen's Association to be used as their headquarters. This would give much needed room in the Emery street building to the City Property or School Department.

The application of the Workmen's Compensation Act came into full effect last year under the supervision of Mr. Charles A. L. Wright. The subject is one that requires most careful consideration, as the city employs a large number of laborers, workmen, and mechanics, for all of whom the city is liable in case of injury. The city did not deem it advisable to insure, and I cannot but feel this action was justified. We should continue to assume our own insurance. This work was excellently carried out by Mr. Wright, who assumed the extra work without additional pay. He should be compensated for his valuable work and I so recommend. The duties of the city physician have correspondingly increased and I recommend an increase in his salary.

Every one knows how I feel relative to the new bridge and the union station, as I have dealt with both of these questions in previous inaugural addresses. I hope the year 1917 will see a substantial start made on both propositions.

A building line should be established on the south side of Taylor street before the proposed alterations on the Wilkinson building take place. The sidewalks are too narrow at this point for an important down-town business street. Taylor street should also go through to Summer street.

IN CONCLUSION.

In this address I have not even mentioned many of the departments of the city, not because of the fact that they have not received attention, but because I do not think it is within the limits of this address to attempt to cover the whole departmental field. I have dwelt particularly on the matters which seem first to call for consideration at your hands.

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From time to time and as I can give attention and study to the details, I may express my views on subjects not touched upon in this address, by special messages to the city council and through that body to the people of Springfield. This is the day of publicity, and it is my purpose to keep the people fully informed of what is proposed to be done, and the reasons therefor.

What the people pay for, they are entitled to know about.

We are living in an age of constant progress. Each day some new discovery lends its aid to a higher standard of efficiency in our economic existence. New codes of living are prescribed for us by constituted authority to give added safety to the public in its entirety. Educational fields are broadening and extending. All of these are integral parts of an advancing civilization whose limits no human mind can comprehend. It is often difficult to determine when ideas can be made practicable, or must vanish in theory. That problem, in many instances, you will be called upon to decide during the coming year.

Many things which may seem desirable cannot be put into practice through lack of sufficient funds, and while we wish to keep step with the onward march of progress, we are necessarily limited by the financial resources of our municipality, the bounds of which are established by law.

And now, at the close of my message, I wish to urge upon you to scrupulously cleave to the oath of office you have so lately taken. Be governed only by the merit and propriety of the measures presented for your consideration, and adopt them only when found to be for the welfare of the city. Co-operate with each other and with your chief executive, and fearlessly lend your voice and hand to every good and wise endeavor, and may the honors go to him who best can work and best can serve.

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REPORT

OF THE

SCHOOL BOARD

OF THE

CITY OF SPRINGFIELD, MASSACHUSETTS

1916

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SCHOOL BOARD FOR 1917

FRANK E. STACY, MAYOR,
CHAIRMAN, *ex officio.*

TERM EXPIRES.

AT LARGE.—NEWTON M. HALL, Dec. 31, 1918
19 Elliott Street.

WARD 1.—WAYLAND V. JAMES, Dec. 31, 1918
VICE-CHAIRMAN,
69 Waverly Street.
Business Address, 381 Main Street.

WARD 2.—HENRY L. HIRSCH, Dec. 31, 1918
172 Main Street.

WARD 3.—RALPH B. OBER, Dec. 31, 1919
76 Maple Street.

WARD 4.—EDWARD M. PORTER, Dec. 31, 1919
4 Ingraham Terrace.
Business Address, Mass. Mutual Life Insurance Co.

WARD 5.—FLORENCE CLARK, Dec. 31, 1919
107 Dartmouth Street.

WARD 6.—FREDERICK HARRIS, Dec. 31, 1917
270 Maple Street.
Business Address, Third National Bank.

WARD 7.—FRANKLIN A. LATIMER, Dec. 31, 1917
36 Beechwood Avenue.
Business Address, 310 Main Street.

WARD 8.—GEORGE H. HOWARD, Dec. 31, 1917
37 College Street.

SECRETARY,
BERTHA M. McCONKEY.
115 High Street

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SUPERINTENDENT OF SCHOOLS,

JAMES H. VAN SICKLE,

Administration Building. Office hours: School days, from 12 M. to 1 P. M.; Saturdays, from 10 A. M. to 1 P .M.

ASSISTANT SUPERINTENDENT OF SCHOOLS, PRIMARY SCHOOLS, AND KINDERGARTENS,

BERTHA M. McCONKEY,

Administration Building. Office hours: School days, from 12 M. to 1 P. M.; Saturdays, from 10.30 A. M. to 1 P. M.

CHIEF CLERK,

FRED L. WARD,

Administration Building. Office hours: 8.30 A. M. to 5 P. M.; Saturdays, 8.30 A. M. to 1 P. M.

CLERKS,

EDWINA A. MILLER,
CHARLES A. H. PARKER,
MARY E. BRENNAN,
A. LEOTA PINNEY,
ANNA F. LEONARD,
CATHERINE M. PACKARD,
ADA B. CLAPP.

SCHOOLHOUSE AGENT,

HIRAM L. DORMAN,

Administration Building. Office hours: 10.30 to 11.30 A. M. and 4 to 5 P. M.

CLERK,

FRANK J. DOWNEY.

ATTENDANCE OFFICER,

JOHN A. PARKER,

ASSISTANTS,

H. A. KILLMER,
L. W. KNIGHT,
B. R. MADISON,

Administration Building. Office hour: 12.30 to 1.30 P. M.

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SPECIAL COMMITTEES FOR 1917

Finance—The Mayor, Mr. James, and Mr. Harris.
Text-Books and Supplies—Prof. Howard, Mr. Latimer, and Mr. Porter.
Central High School—Dr. Hall, Dr. Hirsch, and Prof. Howard.
Technical High School—Dr. Ober, Miss Clark, and Prof. Howard.
High School of Commerce—Mr. James, Mr. Harris, and Mr. Latimer.
Industrial Schools and Manual Training—Mr. Latimer, Mr. James, and Dr. Hirsch.
Evening Schools—Prof. Howard, Mr. Latimer, and Mr. Porter.
Kindergartens—Miss Clark, Dr. Ober, and Mr. Porter.
Ungraded Schools—Dr. Hirsch, Miss Clark, and Mr. Porter.
Physical Culture and Hygiene—Dr. Ober, Dr. Hirsch, and Prof. Howard.
Music—Mr. Harris, Mr. Porter, and Miss Clark.
Domestic Science and Art—Miss Clark, Mr. Latimer, and Dr. Hall.
New Buildings—Mr. Harris, Dr. Ober, and Dr. Hall.
Salaries—Dr. Hall, Mr. James, and Dr. Ober.
Ward One Group of Schools—Carew street, Brightwood, Glenwood, Lincoln, Open-Air, Jefferson avenue, Armory street, and Chestnut street—Mr. James.
Ward Two Group of Schools—Hooker and Charles street—Dr. Hirsch.
Ward Three School—Howard street—Dr. Ober.
Ward Four Group of Schools—State street, Worthington street, and School street—Mr. Porter.
Ward Five Group of Schools—Barrows, Tapley, Strickland, and East Union street—Miss Clark.
Ward Six Group of Schools—Acushnet avenue and William street—Mr. Harris.
Ward Seven Group of Schools—Central street, Sumner avenue, Forest Park, Forest Park Portable, Kensington avenue, Alden street, White street, and Eastern avenue—Mr. Latimer.
Ward Eight Group of Schools—Buckingham, Homer street, Myrtle street (Indian Orchard), East Main street (Indian Orchard), and Rushville Portable—Prof. Howard.

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ADVISORY COMMITTEE FOR VOCATIONAL SCHOOL

METAL-WORKING DEPARTMENT.

Edward S. Pomeroy, Master Mechanic, Smith & Wesson; Clarence W. Allen, Superintendent, Springfield Machine Co.

WOOD-WORKING DEPARTMENT.

A. G. Chapman, Carpenter-Builder; C. H. Cutler, Foreman, Hampden Lumber Co.; William Foster, Foreman, Shattuck Brothers.

PRINTING DEPARTMENT.

Erwin O. Blair, Job Printer; Charles B. Porter, Foreman Printing Department, Springfield Fire & Marine Insurance Co.; William M. Lester, President and Treasurer, Loring-Axtell Co.

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SCHOOL CALENDAR, 1917

Winter Term begins	January 2, 1917
Winter Term ends	March 30, 1917
Spring Term begins	April 9, 1917
Spring Term ends	June 29, 1917
Fall Term begins	September 4, 1917
Fall Term ends	December 21, 1917

SCHOOL HOLIDAYS

New Year's Day	January 1
Washington's Birthday	February 22
Patriots' Day	April 19
Memorial Day	May 30
Columbus Day	October 12
Thanksgiving	(Thursday and Friday)

SCHOOL SESSIONS

Elementary Schools	8.45-11.45 A. M. 1.30-3.30 P. M.
Central High School	8.15 A. M.-1.25 P. M.
High School of Commerce	8.15 A. M.-2.30 P. M.
Technical High School	8.15 A. M.-1.50 P. M.

SCHOOL SIGNALS

Two blows, five times, at 7.15 A. M.
No morning session of high schools.

Two blows, five times, at 7.45 A. M.
No morning session of primary and grammar schools.

Two blows, five times, at 11.30 A. M.
No afternoon session of primary and grammar schools.

In addition to the bell signals there will be two blasts of the steam whistle.

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REPORT

OF THE

SCHOOL BOARD

To the Citizens of Springfield:—

The School Board begs to submit for your consideration the following report which, supplemented by that of the Superintendent, will give you a comprehensive review of the work for the year 1916 and some of the needs of the future. A careful examination will give you an idea, at least, of the efforts made to keep our schools in the front line of educational progress.

SCHOOL ACCOMMODATIONS.

Under the present city charter, the School Board has no direct authority or responsibility for the selection of sites or the erection of school buildings, as this is vested entirely in the City Council and represented by the City Property Committee. The co-operative spirit which pervades all branches of the city government has usually led this committee to consult the School Board as to the needs of the department, and it has generally been guided in planning the erecting of buildings by the School Committee's advice. Notwithstanding the cordial co-operation of the two departments, the constantly changing membership of the City Property Committee constitutes a serious obstacle to the adoption of any fixed or continued policy in the erection of school buildings. A growing city like Springfield will, no doubt, always find its school construction lagging somewhat behind its needs, but on the whole the progress made in schoolhouse construction during the current year is encouraging. Nevertheless, a long list of unmet needs must be presented.

In previous reports the need of a new building to replace the old Hooker School and an addition to the Howard Street School has been fully set forth. It is gratifying at this time to report that the addition to the Howard Street School is nearing completion, and contracts for

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the new Hooker School have been let and the building should be ready for use in December, 1917.

The immediate needs of Rushville have been met by the erection of a double portable building in which about sixty children of the lower primary grades are accommodated. Looking to future needs, the location chosen for this school has exceptional advantages. It is large enough to provide ample playground outside of the area that will later be required for a permanent building, which cannot long be delayed since the Boston Road School nearby is already filled to its capacity and must look to the new Rushville building for relief.

A double portable school has been placed in the region east of Forest Park, at the corner of Washington and Woodlawn streets. Here a fourteen-room primary school is to be erected as soon as plans which are already in preparation can be completed. An interesting feature of this building will be the arrangement of the kindergarten rooms by which they may be thrown together for use as an assembly room for school and neighborhood use. A large free space in the basement will be available for play, folk dancing, and group work in physical training.

A similar provision for a combination kindergarten and assembly hall is a feature of the plan adopted for the addition to the Brightwood School, now under construction. Only two years ago a four-room addition to this school was completed. During the first year of its use it was filled and two portables were soon needed to house the overflow. The large development of manufacturing interests in this section of the city and the consequent growth in population could not have been foreseen. The addition will consist of nine rooms, including the kindergarten.

Last year the third floor assembly hall of the Chestnut Street Grammar School was converted into four class rooms, which are all occupied. Plans are now in preparation for an assembly hall with entrance from the first floor of the school and an adequate gymnasium. A two-class open-air unit will be placed on the roof of the assembly hall.

To meet other needs at the North End, the Board has asked for an addition of two or more rooms to the Jefferson Avenue School, and for a primary school of not less than twelve rooms to be located near the old camp grounds, east of the present Armory Street School. Even with the relief that will be afforded by this proposed primary school, an addition to the Armory Street School will be needed at no distant date. This should include a combined auditorium and gymnasium of the type adopted for the Howard Street School.

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The small addition to the Worthington Street School, providing for a much needed kindergarten, is nearing completion.

The Homer Street School is in immediate need of enlargement, since the Buckingham School can no longer accommodate its steadily increasing overflow. A hallway and a portable are already in use there and a second portable must be moved there as soon as it can be released from service at Brightwood.

The capacity of the Dry Bridge School of four primary grades has been doubled by the addition of a portable. The growth of the East Springfield section will soon require a permanent building of considerable size. A suitable site for this building has already been selected.

At present the High School of Commerce is able to accommodate the overflow from the Technical and Central High Schools, but the time is not far distant when this source of relief will fail. Conservative estimates place the complete occupancy of the High School of Commerce by its own membership not later than 1920. In view of this situation, it is gratifying to know that steps are now being taken by the City Property Committee to enlarge the Technical High School, the ground for which has for some months been available. The School Board recommends that, while an addition to the Technical High School is under way, adequate facilities for physical training be provided for the Central High School by constructing a gymnasium at the south end of that building so planned as to form an integral part of the complete building, which it is understood shall cover the site of the old State Street School.

The School Street site, when enlarged by the purchase of additional ground either on the east or south of the present building, will furnish a suitable central location for the grades now located in the State Street School.

The enlargement of the Forest Park Grammar School cannot be long delayed. By use of a portable for one class and basement and attic rooms for other classes, the school manages at present to house all of its pupils. But its three feeders, the Sumner Avenue, Kensington Avenue, and White Street Schools, are sending each year larger and larger classes to the Forest Park School, which is the central school of the district, and it will plainly be impossible for the present building, without enlargement, to meet the needs of this growing territory. It is to be hoped that the time is not far distant when the Forest Park Grammar School in its enlarged capacity may be developed into a junior high school, thereby meeting the requirements of that section of the city and affording, in a measure,

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relief to the high schools. Two or more of the other grammar schools are favorably located to render the same service.

EVENING SCHOOLS.

Elementary evening schools, three in number, are so located as to accommodate each section of the city,—the northern section at the Chestnut Street School, the central and southern sections at the Howard Street School, and the eastern section at the Myrtle Street School, Indian Orchard. Evening schools of the more advanced types are provided in two of the high school buildings,—the Evening School of Trades at the Technical High School, and the Evening High School at the High School of Commerce. An interesting feature in connection with the two last named schools is that each of them has an enrollment larger than that of the day school in the same building.

NEW POLICIES.

In looking over the field, certain new tendencies in the matter of school facilities attract attention. Certain special rooms in addition to ordinary class rooms are required. It is evident that the increased attention to the physical well-being of pupils demanded by the public has resulted in the inclusion of a gymnasium in each grammar school and of facilities for physical training in our high schools of a character such as have as yet been supplied in only one of our high schools, the High School of Commerce. There can be no question that the best possible provision for physical training in our schools should be made.

OPEN-AIR SCHOOLS.

How many open-air rooms should be provided for under-nourished, anæmic children cannot yet be determined. Such good results, however, have attended the work of the open-air pavilion school which the Board has maintained on the Lincoln School grounds, that we have felt justified in securing an open-air room in the new Hooker School, two in the Howard Street School, and two on the auditorium roof at the Chestnut Street School. Any one of these rooms may be used for ordinary school purposes if the need for open-air rooms should diminish. Judging from the reports from the school nurses and medical inspectors, the need seems likely to continue.

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USE OF SCHOOL BUILDINGS AS SOCIAL CENTERS.

The school buildings now in use for social work are the Armory Street, Brightwood, Forest Park, Buckingham, and High School of Commerce in the city, and the Myrtle Street School at Indian Orchard. The use of these properties in this direction, when it does not in any way conflict with school work, is to be commended and encouraged. There, however, appears to be a tendency to make use of the assembly halls principally for social dancing. While a reasonable use for this purpose is legitimate, yet the School Committee would look quite favorably upon a wider use, including more gymnasium work, lectures, and literary entertainments. In this connection the Committee recommends that a moderate appropriation be made to enable it to provide lectures, etc., in the school halls, so that education as well as amusement may be a feature of the "wider use of the school plant."

CHANGES IN PRINCIPALSHIPS.

Mr. Elmer W. Barstow, principal of the Barrows School, is now also in charge of the Strickland School, Miss Jennie E. Whitaker having been placed in charge of the East Union Street School, the principalship of which for so many years was held by Miss Laura L. Boice, retired. At the close of the school year in June, the resignation of Mr. John L. Riley as principal of the Forest Park School was presented and accepted with regret. While in charge of the school only about two years, his work as an educator and executive was of a highly satisfactory nature. He left the service of the city to complete his studies for the degree of Doctor of Philosophy at Columbia University. The vacancy caused by this resignation was filled by the selection of Mr. Ballard D. Remy, of Decatur, Illinois, who had had some years of experience as principal of a junior high school of that city. Mr. Remy's work already gives promise of value to the schools in that section.

FRATERNITIES AND SORORITIES.

For some years the growth of these organizations in our schools has given evidence of results not altogether desirable. The attention of the School Board having been called to the matter, a special committee of investigation was appointed. After a lengthy and very exhaustive inquiry, including hearings at which both sides were represented, the committee submitted its report which the Board unanimously accepted

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and affirmed its disapproval of secret societies among high school pupils. It directed the Superintendent to send at the beginning of each semester a communication to the parents of all pupils about to enter any of our high schools, setting forth the position of the School Board regarding high school secret organizations and requesting their co-operation in preventing all pupils from joining such sororities. The ruling of the Board was as follows:—

"No pupil of a public school who shall hereafter become a member of, or associated with, any fraternity, sorority, or other secret society, shall be eligible to an office in any school organization or on the staff of any school publication, or to represent his school in any intellectual or athletic contest, or in any public manner whatever.

"Before any pupil shall be permitted to hold any of said offices, or represent his school in any of said capacities, he shall satisfy his principal, by a written affidavit or otherwise, that he is not, and will not become, a member of any of the afore-mentioned secret organizations."

RETIRING MEMBER.

The retirement of Miss Leona M. Peirce from the School Board after twelve years of faithful service is worthy of notice. She has given of her time unstintedly, not only in attendance at its regular meetings and those of numerous sub-committees, but in her personal visits to various schools while in session. To her efforts is due in no small measure the success of the lunch departments in the three high schools, where more than 2,000 high school students are served simple and nutritious lunches daily at a nominal cost to them and without cost to the taxpayer. Any community that can command such devoted service as she has rendered is fortunate indeed.

Your further attention is invited to the sections set apart in this report for the detailed statement of the Superintendent explanatory of the various activities of the school system and to the various tables of statistics which are included.

Respectfully submitted for the Board,

FRANKLIN A. LATIMER.

December 30, 1916.

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ANNUAL REPORT

OF THE

SUPERINTENDENT OF SCHOOLS

To the School Board:—

In accordance with the requirements of your rules and regulations, I have the honor to submit to you my report of the schools for the current year.

On account of the prevalence of infantile paralysis, the opening of the schools for the fall term was deferred till October 2. The teachers reported for duty on September 5, and one week was devoted to the institute work which usually occupies the afternoons of the first two weeks of the term. One week lost by late opening will be made up by omitting one of the short vacations which it has been customary to grant between January and June.

The attendance, except in the kindergartens, has been unusually good from the first day. The customary increase in average attendance over that of the preceding year was recorded at the end of the first month of school. In the high schools the increase was 83, and in the elementary schools, 632; while in the kindergartens there was a decrease of 61. A month later the kindergartens showed a record of attendance about equal to that of the corresponding month of last year.

Pupils as well as teachers seem to feel the importance of making extra effort on account of the enforced shortening of the term, and indications point to the completion of a full year's work in spite of the handicap of a late start.

In this report I wish to give chief emphasis to a change in the organization of our upper grammar grade work which began about two years ago. This change has already produced noticeable results of value, and, if carried out to its logical conclusion, will have far-reaching consequences, not only in meeting the needs of the children, but also in lessening the growing costs of education. This change looks toward the elimination of one of the thirteen grades into which the schools have been divided

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The geography of the ninth grade is of a high order. It corresponds rather closely to physical geography as presented elsewhere in the first year of the high school. At present the first year work in science in our high schools is to a considerable extent a duplication of our ninth grade work in geography and nature study. A first year high school course in science could easily be worked out which would utilize the excellent work already being done in our ninth grade instead of wastefully duplicating that work under another name.

When it is seen how many subjects of high school grade are already included in this ninth elementary school year, and how little strictly elementary school work there is left to be done in that grade, the question arises whether it is not time to remove from the printed description of our school organization a grade that has almost ceased to exist. I am strongly inclined to recommend that this be done. Springfield is one of an extremely small minority of school systems in New England that have retained even on paper the nine grade system. Springfield has practically eliminated the superfluous grade, though the name is still kept on our books. Besides being a misnomer, it has a certain psychological effect upon the attitude of teachers toward the amount of time which a pupil should spend in the elementary school. Since we commonly speak of nine grades below the high school, teachers and pupils not unnaturally feel that nine years is the normal time for a child to spend in the grades. Consequently the need of adopting methods for accelerating progress, corresponding to the efficiency methods which are coming into use in the business world, do not make a sufficiently strong appeal. Under flexible plans of promotion, it ought perhaps to make no difference whether we divide the elementary school course into nine grades or eight, or a still different number, but practically it does make a difference. The more years we regard as available, the more leisurely is our attitude, whether we are pupils or teachers, and the less do we feel the need of making every day count in definite progress.

Does the elimination of the ninth grade call for any change in the housing of pupils? Not necessarily; it is simply a question of available space. If the various high schools have room for the constantly increasing number of pupils as they become ready for the work of the first high school year, that year's work would doubtless be carried on in the high school buildings. If, however, the grammar schools should have available rooms at a time when the high schools are overcrowded, the pupils ready for high school work could without disadvantage remain in the grammar school buildings a year longer. The problem would not be

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a new one, for high school work is already being done in grammar school buildings, since they offer the beginnings of high school work and choice among courses, and are characterized by departmental instruction and promotion by subject. Any grammar school having two classes of pupils in each half year of the course can carry on the work characteristic of the junior high school economically. In fact, the junior high school plan, or as it is often called, the "Six-Three-Three Plan," is less expensive than the eight-four plan. Under the six-three-three plan, buildings of less expensive architecture and equipment than are customary in high schools will meet all needs for the freshmen, and they constitute one third of the usual high school enrollment, whereas under the eight-four plan accommodations of expensive high school type are usually provided for all.

By the plan under discussion, the work of the first high school year might be carried on in junior high schools, leaving ultimately three years' work for each of the senior high schools,—the Central, the Technical, and the Commercial. This in fact is the present situation, except that the plan has not been long enough in operation to place the senior high school fully on the three-year footing. However, by reason of credits gained in the grades, many pupils now in the lower classes in these schools will undoubtedly gain their diplomas three or three and one half years after the date of entrance.

In the year 1914, before any change had been made in the course of study, the cost of the ninth grade in teachers' salaries was $23,125. The elimination of this grade should represent a considerable saving, not, however, this full amount, since some salary readjustment would doubtless be called for to meet new conditions. As the schools increase in enrollment with the growth of the city, the saving from this source would, of course, be proportionally greater. Just what the saving is now cannot be stated because the ninth grade is in a transition stage. It is safe to say, however, that when the ninth grade and the first high school year become fully merged as a single year of a twelve-year course, the annual saving in salaries alone over the former plan should approximate $20,000.

But there are other economies worth considering. The elimination of the ninth grade releases 25 class rooms for high school work. This is a further advantage of no small importance in view of the rapidly increasing pressure of enrollment upon our high schools. Assuming that under the junior high school plan, each room would seat 30 pupils, these 25 class rooms would seat one half as many pupils as the High School of Commerce. This high school cost $713,000. Twenty-five rooms in any of our best

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under the six-three-three plan would go far toward financing this desirable addition to Springfield's educational scheme.

THE VOCATIONAL SCHOOL.

In the past year fifty-eight boys entered the trades for which they were training. This very large proportion of the school enrollment entering the trades is due to the extraordinary demands for trained help at this time.

The total maintenance cost for the past year was		$21,668.08
Income from tuition from non-resident students,	$2,605.00	
Reimbursement from State,	8,784.50	
Value of product turned out,	9,899.54	
		21,289.04
Net cost,		$379.04
Cash receipts for product this year amount to		$827.42
Actual credits received from other city departments,		719.17
Value of products produced for other departments,		6,894.65

These product figures are larger than reported for any previous year.

Plans are now under way for establishing a co-operative apprenticeship course for machinists, regularly indentured apprentices to be sent to the school one day each week. The advantage of training in the skilled trades becomes more evident each year and more workers are turning toward the school for definite training. They appreciate the fact that if industrial conditions become less active, skilled training will be an advantage in helping them to retain their jobs. On the other hand, several employers who have experienced difficulty in securing skilled workers are facing the future by encouraging this apprenticeship course.

A late afternoon course is conducted for machinists who work nights. This course is classed by the state department as an evening course. The machine shop equipment in the Vocational School is well adapted for evening work and plans are being prepared for offering short unit courses on the various tools. The machine trade in Springfield is so highly specialized, that it is difficult for workers to advance without training in the next step beyond them. These short unit courses are designed to meet the needs of the worker who is seeking promotion.

The evening printers' course was operated last year as a general trade improvement course. The members of the class recommended that for this year the course be operated on the short unit basis. Details of the new course are now being prepared.

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It is hoped that the course in ornamental plastering that was asked for last year will soon be established.

THE HIGH SCHOOLS.

The present enrollment of the High School of Commerce is 982. The enrollment for the fall term of 1912 was 466. Of course this rapid growth will not keep up indefinitely, but it is easy to see that it will not be many years before the enrollment of the school will be equal to the maximum capacity of the building.

The Central and the Technical High Schools have had a very even growth, their present enrollment (November) being 861 and 866, respectively. With the opening of the February semester, the enrollment of each of these schools will be approximately 1,000. The normal seating capacity of the Central is 795; that of the Technical, 750. By sending first-year pupils to the High School of Commerce, provision can be made for the overflow from these schools till the fall of 1918, when an addition to one or the other should be in readiness. So far as enrollment is concerned, there is little to indicate which school should be first enlarged. Other conditions, however, will be deciding factors. Ground is already available for the addition to the Technical High School, while that upon which the addition to the Central must be built is still occupied by the State Street Grammar School and cannot be vacated till new quarters are provided for that school. It is evident, therefore, that the Technical is the first to be enlarged, and it is gratifying to note that steps have already been taken to provide the needed addition. It is not too early to plan the addition which the Central High School must soon have. To relieve well-nigh intolerable conditions under which physical training for girls is carried on, a gymnasium should be built on the west side of the building without delay. This could be constructed to conform with plans for an addition to be built later.

In view of the rapid increase in the membership of the High School of Commerce, the question whether all the graduates of the school are able to secure positions is pertinent. The principal of the school does not know any graduate of the school who is without a position and desires to secure one. The demand for graduates greatly exceeds the number available. Nearly one half of those who are to graduate the first of February have already secured desirable positions. A vocational bureau is maintained in the school for the mutual benefit of employers and graduates.

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The three newest courses in the High School of Commerce are household administration, salesmanship, and business administration.

The aim of the course in household administration is to teach economy of management of the home, with a view to conserving time, energy, and money. Budget making, domestic equipment, dietetics, marketing, problems of dress, and related subjects are studied. Many of the girls are already attempting to apply in their own homes the principles which they have learned in school.

In salesmanship the topics studied are textiles, color, design, merchandise, store arithmetic, and English. Demonstration sales constitute the laboratory work. The business men of the city have been generous in allowing the use of merchandise for this purpose. They have also given a number of helpful talks to the classes.

The course in business administration is designed to broaden the student's understanding of finance, organization, credits, collections, accounting, and auditing, and to inculcate the habit of considering any concrete business problem in all its interesting and interdependent relations.

Two important changes in the faculty of the Central High School deserve notice. After four years of valued service, Frederick R. Willard, head of the English department, tendered his resignation to become principal of the Watertown, Mass., High School. He has left a well-organized department. The position has not as yet been filled. The vacancy in the headship of the Science department has been filled by the selection of Clarence M. Hall. Mr. Hall is a graduate of the Springfield Central High School and of the Worcester Polytechnic Institute, and a successful teacher of several years' experience in this city and elsewhere. He has been prominent among teachers of science and is now for the second year president of the Eastern Association of Physics Teachers.

At the Technical High School the most notable new development during the past year has been the organization of the vocational bureau under the management of the director of activities, Mr. Clifton O. Page. The purpose of this bureau is to place pupils and graduates in remunerative positions, with due regard to their fitness for the work in question. The new courses in Spanish have gained somewhat in popularity, so that their authorization two years ago seems to be amply justified. The clubs representing English activities have become a part of the English department. Pupils are graded for such work and their marks for such activities become a part of the quarterly English mark.

In accordance with the recent ruling of the School Board, the principals

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of all of the high schools have put into operation a definite arrangement for eliminating all fraternity influence from the various student clubs and societies. This influence still persists to a certain extent owing to the presence in school of many past fraternity members. Since the larger part of these graduate next June, participation in the activities hereafter will rest on recommendations made by the teachers, who will make their choice on the basis of the student's merit.

SOME RECENT HONORS.

A special high school assembly was held in the Municipal Auditorium in November in recognition of the honors won by our schools at the Panama-Pacific Exposition. A diploma of honor for its part in the exhibit made by the State of Massachusetts was awarded to the Vocational School, and the highest award for a completely furnished room came to the three high schools in the form of a gold medal.

At this same assembly, the Dartmouth trophy for the best prepared group of pupils who entered that institution in 1915 was awarded to the Central High School. This award was based on the record of the students during the first semester of the freshman year, that part of the college course in which the influence of secondary school training would be weightiest.

Shortly after this assembly had been held, word came from Harvard College that the Harvard trophy for the best prepared group of freshmen had for the second time been awarded to the Central High School of this city.

It is obvious that our high schools might have been doing just as good work without ever being fortunate enough to win diplomas, medals, and trophies, yet the cumulative evidence of these awards serves to assure us of the excellence of the system of which they are a part. They have built well upon the foundation furnished by the grades.

ART AND HAND WORK.

Hand work in the first five grades is supervised in conjunction with the art work. Three supervisors of art and hand work visit each class once in two or three weeks, giving attention on one visit to art work and on the next visit to hand work. This arrangement reduces the number of supervisors visiting the grades, and makes possible a close correlation between these two subjects.

In a revision of the course of study in drawing, grade by grade, now completed, the time requirement, adaptability of the subject to the age

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of the pupils, logical progress of the work and its value as education and culture, have been carefully considered by the supervisor and an advisory committee of teachers. A permanent exhibit is maintained in the Board Room, available for all teachers needing the inspiration of new suggestions.

PRACTICAL ARTS.

Five schools now have practical arts departments for boys and girls. Equipment for the shop work has been made partly by the boys in the department and partly by the Vocational School.

The activities of the practical arts course are assigned one third of each school day, including such related academic work as may be done to best advantage in the shop period. Activities include for girls: sewing, cooking, housekeeping, and specialty work; for boys: shop work of considerable variety, and mechanical drawing.

An interesting experiment has been under way for the past two years in the model house in the rear of the Technical High School. Groups of girls, most of whom hear little or no English spoken in their homes, have been given weekly lessons in home-making. The little, four-room house that was built some years ago by the boys of the Vocational School, and furnished and outfitted by Technical High School pupils, lends itself admirably to the plan of instruction in home-making. The girls look upon the house as their own, and each group of ten with an instructor constitutes a family. The teacher is the house mother and organizer, and the "children" are her willing helpers and imitators. The instruction is as informal as though the pupils were living together in a real home, and the enthusiasm of the workers is delightful. They make a game of the work, and play at housekeeping, but very definite results are obtained in the way of improved standards of personal and household cleanliness, neatness, order, cooking and serving, and household arrangement and decoration.

THE WORK OF THE VISITING TEACHER.

One important service rendered by the visiting teacher this year has been a detailed study of all children enrolled in our grammar preparatory classes on the basis of their records in the psychological laboratory with a view to a better classification. She suggests a division of the present grammar preparatory classes into two types of classes:—

1. Grammar Preparatory, for those children who can at some time be returned to the regular grade,—namely, the non-English speaking,

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the temporarily retarded, and those not more than two years permanently retarded.

2. Opportunity classes for those more than two years permanently retarded, the moron and border-line types of defectives.

Since the position of visiting teacher was established three years ago, the work has constantly expanded and developed. In general the pupils referred to her fall quite clearly into three groups: those suffering from maladjustment at home or at school; those retarded in one or more subjects; or those whose progress has been normal or supernormal and for whom advice regarding their future is desired by parents or teachers. There are, of course, children whose condition is to a certain degree due to physical defects, but definitely medical cases are now more promptly referred to the nurses than was formerly true.

The type of child referred to the visiting teacher for examination at the psychological laboratory determines the character of the follow-up work, which, generally speaking, demands three lines of effort: namely, the understanding of physical and environmental conditions and when possible their correction; educational work with both parents and teachers; and proper placing within the school system. All three need co-operative effort; not one can suddenly be accomplished.

It is convincingly evident that greater facilities must be provided for the placing of retarded and maladjusted children within the school system for the mutual benefit of the pupils and the schools.

MUSIC.

The report of the Supervisor of Music discusses the value of music as mental discipline, its cultural value, the need of a revision of the course of study, and music in the high schools. The report cites the boys' glee club at the High School of Commerce, the reorganized orchestra at the Technical High School, and the music club at the Central High School as the most recent expressions of interest in music. Attention is called to the need in proposed additions to the older high schools of adequate quarters suitably equipped where musical activities may be carried on unhampered by distractions incident to places now being used. The report urges the appointment of a properly qualified teacher of music for the high schools in order that the director may give more time to the work in the grades; also an accompanist, whose duties would consist of playing at all chorus rehearsals and at graduation exercises.

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NATURE STUDY.

The report of the supervisor is devoted to a description of the course of study by grades as revised, and to the policy pursued in supervision,—how new teachers are helped, what illustrative material is available, what Saturday trips are taken, how children are put in touch with their environment, and the like.

The home garden supervision during July and August is comparatively new. Six hundred gardens were started. Of these about 300 were so satisfactory as to be rewarded by abundant financial profit. The co-operation of the Hampden County Improvement League, through expert advice and encouragement, was a factor of large importance, as was the interest shown by the Board of Trade by making it possible to award liberal prizes for good gardens and good exhibits.

PHYSICAL TRAINING.

The director contrasts the experience of the year at the High School of Commerce under ideal conditions for physical training with that at the other two high schools where inadequate facilities must be used. He calls attention to the need of new gymnasiums and of periods long enough to permit proper bathing and rest before passing to the next school period. He asserts the need of longer periods for boys and girls of the five grammar schools in which gymnasiums are provided in place of two short weekly periods of 30 minutes each. He commends the change brought about in recess periods in the elementary schools through ball games of various sorts which have taken the place to a large extent of the rough play formerly indulged in. Attention is called to the efficient services rendered by ten Y. M. C. A. College men employed in regular session, and of 97 men employed in after school supervision of soccer football, baseball, and track athletics.

THE EVENING HIGH SCHOOL.

The principal has submitted an exceedingly valuable report from which I reproduce a few interesting tables showing the character of the membership and attendance. The enrollment went over the 1,000 mark on Monday evening, November 13. The report is based upon the attendance at that date.

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ENROLLMENT BY NIGHTS.

The total number of men and women who had enrolled by the close of school on each of the nights indicated is shown on the following table. The grand totals for each night are also given.

October											November					
5	6	9	11	16	18	19	23	25	26	30	1	2	6	8	9	13
Men																
125	206	303	320	362	388	396	427	440	447	476	483	485	492	495	497	500
Women																
167	253	340	368	414	427	428	451	463	466	474	479	481	491	496	498	500
292	459	643	688	776	815	824	878	903	913	950	962	966	983	991	995	1,000

The fact that the 1,000 enrollment did not come until the seventeenth night of registration and the fifteenth night of school, leads to the belief that many pupils wait until cold weather before thinking of evening school, and that an attempt to start evening school early in September would meet with disappointing attendance.

Enrollment by Ages.

The following table gives the enrollment by ages for men, for women, and for the entire school:—

	Men	Women	Total
Under 21,	297	311	608
21 to 30,	174	137	311
30 to 40,	21	36	57
Over 40,	8	16	24
	500	500	1,000

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Enrollment by Birthplaces.

The following table shows the birthplaces of the pupils arranged according to locality, and by men, women, and totals:—

	Men	Women	Total
Springfield,	101	156	257
Massachusetts (outside of Springfield),	103	102	205
Other New England states,	46	62	108
Other states of the United States,	67	76	143
Russia,	50	35	85
British Isles,	13	34	47
Germany,	32	3	35
Canada,	13	18	31
Italy,	23	4	27
Greece,	9	1	10
Other countries,	43	9	52
	500	500	1,000

Born in United States, 713. Foreign born, 287.

Enrollment by Previous Education.

The table below shows the day school education of the men and women before entering the evening school. Many, of course, have added to this schooling by attending the evening schools of this or of other cities for one or more terms.

	Men	Women	Total
Below grammar,	42	35	77
Grammar school,	173	191	364
High school (not graduates),	124	131	255
High school graduates,	40	80	120
Normal school,	1	7	8
College,	5	11	16
Foreign school,	113	45	158
Foreign college,	2		2
	500	500	1,000

THE EVENING SCHOOL OF TRADES.

The statistics of enrollment for the season beginning in October, 1916, are given below. They show certain facts worthy of attention: (1) Increased interest in manufacturing industries; (2) the maturity of those who take advantage of this school; (3) the considerable number who have had high school or college training; (4) the length of residence in Springfield.

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Departments.	Enrollment.	Av'ge age.	Length of residence in Springfield (years). 1	1-5	5-10	10-15	15	Non-res'ent, etc.
Mechanical and Architectural Drawing,.....	173	21	35	44	15	30	35	14
Machine-Tool Work,....	*203	25	27	88	24	15	26	23
Woodwork,.....	30	23	3	7	4	14		2
Shop Mathematics,.....	90	24	23	16	33			18

	Previous Education. College.	High School.	9th Grade.	8th Grade.	Below 8th.	No. from Trades Repre'ted. Mach. Shop.	Wood work.	Draftsmen.	Clerks.	Others.
Mechanical and Architectural Drawing,.....	3	62	50	33	15	86	25	9	20	26
Machine-Tool Work,....	9	41	58	33	62	Note*				
Woodwork,.....	3	11	6	3	7	4	7	8		11
Shop Mathematics,.....		20	26	7	8	42		12	6	15

*NOTE: About 400 made application this year for membership in the machine shop department; 203 were enrolled. This is about 40% more than we have been able to accommodate hitherto, the increased accommodations being due to the addition of one more session each week in this department. If the school had twice the machine shop capacity that it now has, it could utilize it for the Evening Trade School. About 46 shops and factories of Springfield and vicinity are represented in the classes, the largest representation being from the Westinghouse Company, viz., 42. The Bosch Magneto Company is represented by 15; the Hendee Manufacturing Company by 21; others by from 2 to 8.

Respectfully submitted,

JAMES H. VAN SICKLE,

Superintendent of Schools.

December 30, 1916.

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ANNUAL REPORT

OF THE

SCHOOL ATTENDANCE OFFICER

To the School Board:—

I have the honor to present herewith the report of the Attendance Officers for the current year:—

Number of visits to stores and factories,	256
Number of visits to moving picture houses and theaters,	24
Number of visits to hotels,	10
Number of visits to bowling alleys,	9
Number of minors found illegally employed,	230
Number of visits to school buildings,	1,964
Number of cases reported from schools,	13,726
As follows: for absence, 11,348; truancy, 701; tardiness, 459; school offenders, 37; non-attendants, 71; newsboys, 6; evening school pupils, 1,104.	
Number of children found about the streets,	933
Upon investigation it was found that 701 were absentees; 112 were truants; 4 were school offenders; 28 were tardy children; 88 were non-attendants.	
Of the children found about the streets, 48 absentees, 15 truants, 1 school offender, 1 tardy child, 36 non-attendants, 2 newsboys, were taken to their homes; and 24 absentees, 57 truants, 1 non-attendant, 7 tardy children, were taken to school.	
Number of visits made to homes,	16,275
Divided as follows: for absentees, 13,348; truants, 872; tardiness, 282; school offenders, 35; non-attendants, 212, newsboys, 61; evening school pupils, 1,465.	
Number of individual absentees,	6,021
Heads of families warned by letter that they would be prosecuted unless their children were sent to school regularly,	38
Heads of families prosecuted for neglecting to cause children under their control to attend school regularly,	9
Number of pupils truant,	566
Number of truancies,	880
Number of days of truancy,	936
Number prosecuted as habitual truants,	15

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Number committed to the Training School,	4
Number of cases continued from day to day for sentence,	11
In addition to the boys committed to the Hampden County Training School, two boys who were on parole had their paroles revoked and were returned.	
Number of school offenders prosecuted,	5
Number of school offenders committed to the Hampden County Training School,	1
One school offender, who was on parole from the Hampden County Training School, had his parole revoked and was returned.	
Moving picture houses and theaters warned by letter,	19
Prosecutions against moving picture houses for admitting children under fourteen years of age,	1
(Penalty imposed, fifteen dollars.)	
Firms warned by letter for employing minors without certificates,	2
Prosecutions for presenting forged evidence of age,	1
(Penalty imposed, ten dollars.)	
Bowling alleys warned by letter,	1
Roller skating rinks warned by letter,	1
Firms warned by letter for not returning certificates in accordance with the state law,	3
Number of children not attending any school,	220
Of these 71 were reported and 149 were discovered by the attendance officers. These cases were disposed of as follows: 178 entered school; 8 were sick and physician's certificates were received; 13 left town; 6 were under age; 15 received employment certificates.	
Number of evening school pupils prosecuted for not attending evening school,	18
Number of individual children whose names appeared on the Attendance Officers' record for the year,	7,250
Number of certificates issued during the past year,	8,062
Employment certificates, 1,791	
Educational certificates, 5,635	
Educational certificates (illiterate), 636	
Number of boys licensed for street trades during the year,	131
Number of cases referred to the Hampden County Children's Aid Association,	8
Number of cases referred to the Board of Health,	14
Number of cases referred to the Union Relief Association,	10
Number of cases referred to the School Nurse,	11

A problem which is facing the attendance departments of the schools of Massachusetts is the carrying out of the provisions of Chapter 102 of the General Acts of 1916. This Act "requires in place of the annual school census the establishment and maintenance of a continuous record of persons aged over five and under sixteen years and of illiterate minors

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over sixteen." No definite method is provided for the keeping of this "continuous record" and it is probable that few cities will have the house-to-house canvass to secure information that was used for the annual census.

At the convention of the National League of Compulsory Education Officials, held at Newark, New Jersey, in October, considerable time was devoted to discussion of the continuous census or registration. Detroit, Michigan, is maintaining such a registration in as thorough a manner as any place in the country. There is a census bureau with a force of clerks; an annual canvass is made and the results checked up with the registration cards and with the school enrollment; addresses are corrected as children move or are transferred, the information being obtained from transfer cards and through the police department from reports of truckmen, who are required to report to the police department details concerning families whose goods they move. Through these reports it is also possible to locate immediately families moving into the city. The Detroit plan is very expensive and it is probable that results, that for practical purposes would be just as effective, could be secured at a fraction of the cost and in a much simpler way.

Philadelphia tried the continuous census but has given it up as not worth the expense. There, an annual canvass is made which is checked up with the school enrollment to see that all children of compulsory school age are attending school. A child who has once been enrolled cannot be dropped from membership except on written report of the bureau of attendance. Until such report is received or a pupil is transferred to another school all of his absences must be recorded. In transferring a pupil, the principal of the school of which the child is a member mails the transfer to the school which he is to attend and the principal receiving the transfer immediately enrolls the child and begins to record his absences if he has not appeared. The weak spot in the Philadelphia plan is, that there is no effective way of locating between the annual enumerations children who may move into the city.

The primary purpose of a school census should be to insure that *all* children of compulsory school age, who are physically and mentally capable, should attend school. The simplest method by which this can be accomplished would be the best. It seems to me it would be sufficient to have: 1st, an annual enumeration or canvass; 2d, a method of obtaining immediately the names of children moving into the city between the annual enumerations; 3d, a law to prevent children once enrolled in school from being dropped without the knowledge of the attendance department.

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The annual canvass should be made in as short a time as possible and preferably by persons not connected with the attendance department. Then it would not only indicate what children would become of compulsory school age during the ensuing year and furnish a check upon the method of locating children moving into the city, but would be an independent commentary upon the thoroughness with which the attendance department secures the attendance of all children at school. The method of securing the names of children moving into the city might be the one used in Detroit, or a better way might be to require that a permit be issued by the police department before a family is moved. The only changes necessary to keep such a census up-to-date would be the addition of cards for children moving into the city or becoming of compulsory school age and the removal of cards for children removing from the city or getting beyond the compulsory school age. To alter addresses on the cards whenever children change their place of residence is useless labor. Whenever it is necessary to investigate the absences of a pupil the school can furnish the address. To include on the census cards the number of days of attendance each year is worse than useless. As nearly all children attend school in at least two rooms each year such a record would involve a tremendous amount of work and the information would be but a duplication of what already existed on the enrollment sheets. In the same way information concerning a child's employment certificates can be obtained in a much fuller way from the certificate file than from the entry on the census cards of the dates when certificates were issued to him. In short a mere duplication of statistics is not only useless labor and expense, but by keeping the attendance officers in the office doing clerical work it actually prevents them from doing their legitimate work of finding children who may be wandering about in the streets or public places during school hours, investigating irregular school attendance and illegal employment of children.

It is to be hoped that Massachusetts will adopt a simpler and more effective form of school census.

Respectfully submitted,

JOHN A. PARKER,
Attendance Officer.

December 30, 1916.

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STATISTICS

ACCOMPANYING

Superintendent's Report.

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TABLE SHOWING VALUE OF LAND AND BUILDINGS AND EQUIPMENT.

SCHOOLS.	Land.	Buildings.	Total.
Acushnet Avenue,	$16,000.00	$45,467.38	$61,467.38
Alden Street,	3,800.00	14,357.48	18,157.48
Armory Street,	8,500.00	145,600.04	154,100.04
Barrows,	18,700.00	44,636.36	63,336.36
Boston Road,	1,500.00	7,273.30	8,773.30
Brightwood	6,500.00	60,866.71	67,366.71
Buckingham,	45,000.00	160,567.57	205,567.57
Carew Street,	18,000.00	46,103.05	64,103.05
Carlisle,	3,000.00	200.00	3,200.00
Central High,	172,800.00	350,557.59	523,357.59
Central Street,	20,000.00	77,020.79 1,081.29	98,102.08
Charles Street,	4,000.00	14,307.84	18,307.84
Chestnut Street,	41,000.00	254,328.22	295,328.22
Dry Bridge,	1,000.00	2,981.75	3,981.75
Eastern Avenue,	5,400.00	30,461.42	35,861.42
East Union Street,	5,000.00	24,438.08	29,438.08
Emery Street Shop and Storehouse,	7,000.00	23,525.00	30,525.00
Five Mile Pond,	500.00	2,000.00	2,500.00
Forest Park Portable	—	3,546.96	3,546.96
Forest Park,	30,000.00	93,020.46	123,020.46
Glenwood,	2,500.00	16,548.45	19,048.45
High School of Commerce,	174,200.00	735,905.62	910,105.62
Homer Street,	12,000.00	36,838.47	48,838.47
Hooker,	178,100.00	80,384.36	258,484.36
Howard Street,	38,600.00	99,895.84	138,495.84
Grammar, I. O.,	6,500.00	185,925.87	192,425.87
Primary, I. O.,	3,000.00	12,385.30	15,385.30
Jefferson Avenue,	7,500.00	41,197.10	48,697.10
Kensington Avenue,	10,500.00	98,353.63	108,853.63
Lincoln,	24,000.00	89,197.66	113,197.66
Rushville Portable,	—	3,482.34	3,482.34
School Street,	35,500.00	20,222.77	55,722.77
Sixteen Acres,	500.00	2,587.17	3,087.17
State Street,	69,000.00	78,188.78	147,188.78
Strickland,	5,000.00	20,239.79	25,239.79
Sumner Avenue,	49,000.00	59,902.12	108,902.12
Tapley,	22,000.00	70,585.16	92,585.16
Technical High,	97,992.68	280,366.17	378,358.85
Vernon Street Office Building,	42,900.00	3,155.53	46,055.53
Vocational,	79,800.00	43,864.23	123,664.23
Wachogue,	200.00	800.00	1,000.00
White Street,	14,000.00	49,915.48	63,915.48
William Street,	14,000.00	58,377.31	72,377.31
Worthington Street,	12,000.00	56,640.55	68,640.55
	$1,306,492.68	$3,547,300.99	$4,853,793.67
Operating Equipment:—			
Furniture and Fixtures,		$165,467.13	
Miscellaneous,		8,595.55	$174,062.68
Books and Educational Equipment,			207,599.03
			$5,235,365.38

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SUMMARY.

	Appropriation.	Plus or Minus Transfers.	Net Appropriation.	Expenditures.	Balance.
Administration,	$26,867.67		$26,867.67	$23,253.89	$3,613.78
Central High School,	77,310.00		77,310.00	73,911.78	3,398.22
Technical High School,	85,696.67		85,696.67	83,669.67	2,027.00
Evening School of Trades,	7,063.00		7,063.00	6,732.62	330.38
High School of Commerce,	68,111.60		68,111.60	67,653.77	457.83
Evening High School,	7,279.00		7,279.00	7,237.34	41.66
Vocational School,	19,805.50	+$100.00	19,905.50	19,884.28	21.22
Evening Vocational School,	631.00		631.00	87.00	544.00
Vocational School—Special,	200.00		200.00	124.79	75.21
Open-Air School,	3,060.00		3,060.00	2,819.01	240.99
Graded Schools—Day,	461,505.00	—100.00	461,405.00	455,411.55	5,993.45
Kindergartens,	29,376.00		29,376.00	28,243.70	1,132.30
Elementary Evening Schools,	7,374.00		7,374.00	6,951.54	422.46
Total,	$794,279.44		$794,279.44	$775,980.94	$18,298.50
*Schoolhouse Property,	208,877.13		208,877.13	187,484.70	21,392.43
*Fire Prevention,	32,650.00		32,650.00	32,142.21	507.79
Total,	$1,035,806.57		$1,035,806.57	$995,607.85	$40,198.72

*Under control of City Property Committee of City Government.

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EXPENDITURES

ADMINISTRATION.

Salaries.		
Superintendent,	$5,000.00	
*Assistant Superintendent,	1,000.00	
Secretary School Committee,	100.00	
Chief Clerk,	2,200.00	
Attendance Officers,	4,200.00	
Clerks,	4,162.33	
		$16,662.33
Stationery and Office Supplies,	805.39	805.39
Account Books, Record Forms, Printing, Ruling and Binding,	540.37	540.37
Advertising,	54.36	54.36
Communication Service.		
Postage,	570.69	
Telephone,	73.70	
Telegraph,	6.48	
		650.87
Transportation Service.		
Carriage hire,	32.50	
Freight and express,	3.10	
		35.60
Miscellaneous Supplies and Expenses.		
Magazine subscriptions,	47.13	
Auto upkeep,	250.00	
Miscellaneous,	26.87	
		324.00
Traveling Expenses,	301.49	301.49
Repairs and Maintenance of Equipment,	6.65	6.65
Replacement of Equipment,	61.25	61.25
New Equipment,	80.95	80.95
Support of Truants,	545.38	545.38
School Census,	455.84	455.84

STOREHOUSE.

Salary—Clerk,	785.33	785.33
Expenses.		
Assistance,	568.00	
Telephone,	37.78	
Delivering supplies,	1,309.05	
Miscellaneous,	21.90	
		1,936.73
Replacement of Equipment,	7.35	7.35
Total,		$23,253.89

* In addition to salary as Supervisor of Primary Grades and Kindergartens, which is included in item, "Salaries—Supervisors," under the account of Graded Schools—Day.

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CENTRAL HIGH SCHOOL.

ADMINISTRATION.

Salary—Principal,	$3,600.00	$3,600.00
Salaries.		
Secretary,	710.00	
Clerical Assistance,	2.46	
		712.46
Stationery and Office Supplies.		
Stationery,	34.86	
Binders,	9.60	
Typewriter, etc., supplies,	7.65	
Pencils and pens,	2.40	
Filing supplies,	4.06	
Miscellaneous,	27.05	
		85.62
Account Books, Record Forms, Printing, Binding, Ruling, etc.		
Account books,	15.00	
Printed forms,	435.52	
Binding,	7.84	
Diplomas,	33.00	
		491.36
Communication Service.		
Postage,	94.00	
Telephone,	9.04	
Telegraph,	.46	
		103.50
Transportation Service.		
Freight and express,	.34	.34
Miscellaneous Supplies and Expenses,	43.14	43.14
Traveling Expenses,	46.16	46.16

OPERATION.

Salaries—Heads of Departments,	13,725.00	13,725.00
Salaries—Teachers,	47,556.17	47,556.17
Salaries—Miscellaneous.		
Laboratory,	88.32	
Physical training,	43.60	
Domestic science,	4.00	
Messenger,	96.75	
Miscellaneous,	20.76	
		253.43
Text and Reference Books.		
Text,	2,592.09	
Reference,	127.47	
Binding,	141.58	
Book covers,	185.35	
		3,046.49

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Stationery Supplies.			
Paper.			
White,	$423.36		
Essay,	1,032.30		
Manila,	124.48		
Drawing,	47.04		
Notebooks,	233.50		
Envelopes,	3.05		
		$1,863.73	
Ink,		27.00	
Paste,		3.40	
Pens and holders,		43.78	
Pencils,		87.51	
Thumb tacks and paper fasteners,		29.22	
Rubber erasers,		13.78	
Miscellaneous,		285.35	
			$2,358.77
Materials and Supplies Used in Special Courses.			
Laboratory.			
Small glassware and other small laboratory articles,	160.43		
Chemicals,	70.65		
Miscellaneous,	55.68		
		286.76	
Cooking.			
Provisions,	107.40		
Miscellaneous,	52.15		
		159.55	
Sewing.			
Cloth and sewing supplies,	45.82		
Miscellaneous,	1.25		
		47.07	
Physical Training.			
Laundry,		12.98	
			506.36
Other Operating Supplies.			
Paint,		35.99	
Miscellaneous drawing,		189.57	
Outline maps,		20.33	
Maps and charts,		11.93	
Compasses,		27.50	
Paper towels,		139.06	
Chalk,		11.20	
Blackboard erasers,		5.00	
Miscellaneous,		25.22	
			465.80
Other Operating Expenses.			
Piano repairs, etc., and rent,		64.95	
Graduation expenses,		178.69	
Miscellaneous,		202.36	
			446.00
Maintenance and Repairs of Equipment,		26.86	26.86
Replacement of Equipment,		272.27	272.27
New Equipment,		172.05	172.05
Total,			$73,911.78

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TECHNICAL HIGH SCHOOL.

ADMINISTRATION.			
Salary—Principal,		$3,600.00	$3,600.00
Salaries.			
Secretary,		810.00	
Clerical assistance,		532.66	
			1,342.66
Stationery and Office Supplies.			
Stationery,		33.78	
Rubber stamps, etc.,		28.24	
Typewriter, etc., supplies,		35.64	
Miscellaneous,		6.00	
			103.66
Account Books, Record Forms, Printing, Ruling, etc.			
Account books,		37.50	
Printed forms,		527.40	
			564.90
Communication Service.			
Postage,		59.00	
Telephone,		24.34	
Telegraph,		.75	
			84.09
Transportation Service.			
Freight and express,		27.62	27.62
Traveling Expenses,		18.65	18.65
OPERATION.			
Salaries—Heads of Departments,		18,628.50	18,628.50
Salaries—Teachers,		50,450.84	50,450.84
Salaries—Miscellaneous.			
Tool room,		866.81	
Household science,		8.50	
Drawing,		3.70	
Laboratory,		22.90	
Design,		8.80	
Miscellaneous,		15.80	
			926.51
Text and Reference Books.			
Text,		1,345.45	
Reference,		167.92	
Binding,		64.77	
Mending materials,		4.50	
Covers,		131.28	
			1,713.92
Stationery Supplies.			
Paper.			
White,	$312.86		
Cross section,	17.75		
Manila,	56.00		
Notebooks,	327.44		
Envelopes,	36.08		
Mounts,	6.05		
		756.18	
Ink,		14.96	
Paste,		5.90	
Pens,		56.84	
Pencils,		56.20	
Thumb tacks and paper fasteners,		18.34	
Rubber erasers,		8.75	
Miscellaneous,		40.24	
			957.41

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Materials and Supplies Used in Special Courses.			
Laboratory.			
Small glassware and other small laboratory articles,	$99.36		
Chemicals,	45.58		
Miscellaneous,	64.24		
		$209.18	
Drawing.			
Small drawing tools,	53.32		
Paper, pencils and ink,	548.74		
Miscellaneous,	109.85		
		711.91	
Machine Shop.			
Small tools,	213.56		
Castings and metals,	342.31		
Miscellaneous,	81.18		
		637.05	
Wood Working.			
Lumber,	454.19		
Small tools,	39.60		
Miscellaneous,	54.84		
		548.63	
Household Science.			
Provisions,	253.44		
Miscellaneous,	76.84		
		330.28	
Household Arts.			
Sewing supplies,	78.86		
Miscellaneous,	39.68		
		118.54	
Design.			
Small tools,	64.27		
Miscellaneous,	190.49		
		254.76	
Forging.			
Coal,	95.64		
Metals,	224.38		
Miscellaneous,	15.63		
		335.65	
			$3,146.00
Other Operating Supplies.			
Compasses,		51.56	
Paper towels,		237.75	
Miscellaneous,		37.18	
			326.49
Other Operating Expenses.			
Firing kiln,		33.75	
Graduation expenses,		169.89	
Miscellaneous,		20.18	
			223.82
Maintenance and Repairs of Equipment,		159.01	159.01
Replacement of Equipment.			
Laboratory,		26.30	
Machine shop,		41.69	
Wood working,		16.20	
Household science,		150.00	
			234.19

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New Equipment.		
Laboratory,	$370.44	
Drawing,	65.71	
Machine shop,	564.50	
Wood working,	30.61	
Household science,	18.49	
Design,	10.00	
Miscellaneous,	101.65	
		$1,161.40
Total,		$83,669.67

EVENING SCHOOL OF TRADES.

ADMINISTRATION.

Salary—Principal,	$480.00	$480.00
Salary—Clerk,	149.50	149.50
Account Books, Record Forms, Printing, Ruling, etc.,	30.15	30.15

OPERATION.

Salaries—Teachers,	5,460.00	5,460.00
Salaries—Miscellaneous.		
Tool room assistance,	82.45	
Collecting fees,	25.00	
		107.45
Materials and Supplies Used in Special Courses.		
Machine shop,	72.31	
Electricity,	68.21	
Plumbing,	92.65	
Wood work,	44.10	
Millinery,	13.92	
Sewing,	12.26	
Cooking,	25.00	
Design,	8.85	
		337.30
Other Operating Supplies.		
Paper towels,	73.75	
Miscellaneous,	11.25	
		85.00
Maintenance and Repairs of Equipment,	24.22	24.22
New Equipment,	59.00	59.00
Total,		$6,732.62

HIGH SCHOOL OF COMMERCE.

ADMINISTRATION.

Salary—Principal,	$3,600.00	$3,600.00
Salaries.		
Secretary,	810.00	
Clerical Assistance,	26.46	
		836.46

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Stationery and Office Supplies.		
Stationery,	$4.01	
Rubber stamps, etc.,	3.56	
Binders,	6.22	
Typewriter, etc., supplies,	2.80	
Filing supplies,	53.62	
Miscellaneous,	15.00	
		$85.21
Account Books, Record Forms, Printing, Ruling, etc.		
Account books,	30.00	
Printed forms,	392.02	
Special,	278.61	
Diplomas,	33.50	
		734.13
Communication Service.		
Postage,	30.49	
Telephone,	26.46	
Telegraph,	.25	
		57.20
Transportation Service.		
Freight and express,	3.76	3.76
Traveling Expenses,	85.55	85.55
OPERATION.		
Salaries—Heads of Departments,	5,535.50	5,535.50
Salaries—Teachers,	44,801.11	44,801.11
Salaries—Miscellaneous.		
Matron,	758.75	
Moving pictures,	320.33	
Gymnasium,	8.00	
Laboratory,	2.03	
Miscellaneous,	6.93	
		1,096.04
Text and Reference Books.		
Text books,	1,286.40	
Reference books,	229.57	
Binding,	35.36	
Mending materials,	3.75	
Book covers,	130.18	
		1,685.26
Stationery Supplies.		
Paper.		
White,	$425.40	
Manila,	16.00	
Typewriter,	622.61	
Bookkeeping,	940.10	
Notebooks,	252.72	
Miscellaneous,	235.43	
		2,492.26
Ink,		74.27
Paste,		5.90
Pens and holders,		93.71
Pencils,		45.95
Thumb tacks and paper fasteners,		57.14

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Rubber erasers,		$8.50	
Rules,		44.00	
Pencil sharpeners,		2.50	
Typewriter ribbons,		60.00	
Miscellaneous,		18.35	
			$2,902.58
Materials and Supplies Used in Special Courses.			
Laboratory.			
Small glassware and other small laboratory articles,	$398.85		
Chemicals,	73.70		
Miscellaneous,	93.23		
		560.78	
Shop.			
Lumber,	155.65		
Small tools and hardware,	78.88		
Miscellaneous,	43.52		
		277.55	
Cooking.			
Provisions,	433.74		
Miscellaneous,	60.57		
		494.31	
Sewing.			
Cloth and sewing supplies,	49.32		
Miscellaneous,	.18		
		49.50	
Physical Training.			
Laundry,	325.27		
Miscellaneous,	153.28		
		478.55	
Salesmanship,		68.55	
			1,929.24
Other Operating Supplies.			
Paper towels,		238.74	
Outline maps,		36.82	
Miscellaneous,		123.96	
			399.52
Other Operating Expenses.			
Moving pictures.			
Film service,	500.00		
Miscellaneous,	104.47		
		604.47	
Graduation expenses,		164.93	
Lantern slides,		9.79	
Miscellaneous,		28.95	
			808.14
Maintenance and Repairs of Equipment,		5.39	5.39
Replacement of Equipment.			
Shop,		10.80	
Laboratory,		5.00	
Typewriters,		666.25	
			682.05
New Equipment.			
Office furniture,		162.00	
Typewriters,		900.00	
Laboratory,		61.90	
Sewing,		527.92	
Maps and charts,		33.00	
Multigraph,		580.16	
Miscellaneous,		141.65	
			2,406.63
Total,			$67,653.77

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EVENING HIGH SCHOOL.

ADMINISTRATION.

Salary—Principal,		$355.00	$355.00
Salary—Clerical Assistance,		134.75	134.75
Stationery and Office Supplies.			
Stationery,		1.75	
Rubber stamps, etc.,		.24	
Filing supplies,		2.35	
Miscellaneous,		.42	
			4.76
Account Books, Record Forms, Printing, Ruling, etc.			
Account books,		10.50	
Printed forms,		98.56	
			109.06
Communication Service.			
Postage,		12.00	12.00

OPERATION.

Salaries—Teachers,		5,259.50	5,259.50
Text and Reference Books.			
Text,		593.57	
Binding,		.68	
			594.25
Stationery Supplies.			
Paper.			
White,	$12.45		
Manila,	3.00		
Typewriting,	172.27		
Bookkeeping,	164.80		
Notebooks,	29.00		
Envelopes,	2.15		
		383.67	
Pens,		11.50	
Pencils,		31.80	
Rules,		11.25	
			438.22
Materials and Supplies Used in Special Courses.			
Laboratory.			
Small glassware and other small laboratory articles,	145.35		
Chemicals,	9.40		
Miscellaneous,	7.05		
		161.80	
Cooking.			
Provisions,		15.91	
			177.71
Other Operating Supplies.		6.00	6.00
Other Operating Expenses.			
Graduation Expenses,		44.59	
Models,		22.50	
			67.09
New Equipment,		79.00	79.00
Total,			$7,237.34

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VOCATIONAL SCHOOL.

ADMINISTRATION.

Salary—Principal,		$2,340.00	$2,340.00
Salary—Clerk,		728.00	728.00
Stationery and Office Supplies.			
Stationery,		3.00	
Rubber stamps, etc.,		1.25	
Filing supplies,		.85	
Miscellaneous,		13.96	
			19.06
Communication Service.			
Postage,		33.78	
Telephone,		28.48	
Telegraph,		3.57	
			65.83
Transportation Service.			
Freight and express,		21.76	21.76
Traveling Expenses,		59.05	59.05

OPERATION.

Salaries—Teachers,		9,886.37	9,886.37
Salaries—Miscellaneous,		61.66	61.66
Text and Reference Books.			
Text,		71.16	
Reference,		26.41	
Magazine subscriptions,		11.50	
			109.07
Stationery Supplies.			
Paper.			
White,	$16.20		
Manila,	8.00		
Envelopes,	2.35		
Blotting,	.66		
Pressboard,	7.38		
		34.59	
Ink,		1.50	
Paste,		1.40	
Pens,		6.20	
Pencils,		44.95	
Miscellaneous,		17.83	
			106.47
Materials and Supplies Used in Special Courses.			
Machine Shop.			
Small tools,	83.61		
Metals and castings,	822.80		
Miscellaneous,	157.74		
		1,064.15	
Printing.			
Cardboard and paper,	938.30		
Printer's ink,	109.77		
Miscellaneous,	202.08		
		1,250.15	
Carpentry.			
Lumber,	886.47		
Hardware,	60.01		
Miscellaneous,	119.54		
		1,066.02	

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Cabinet.			
Lumber,	$228.95		
Hardware,	55.99		
Miscellaneous,	34.81		
		$319.75	
Pattern.			
Lumber,	138.24		
Hardware,	5.96		
Miscellaneous,	18.57		
		162.77	
			$3,862.84
Other Operating Supplies.			
Paper towels,		129.76	
First-aid supplies,		3.41	
Miscellaneous,		24.19	
			157.36
Other Operating Expenses.			
Graduation expenses,		8.00	
Miscellaneous,		58.23	
			66.23
Maintenance and Repairs of Equipment,		147.59	147.59
Replacement of Equipment,		429.41	429.41
New Equipment,		1,823.58	1,823.58
Total,			$19,884.23

EVENING VOCATIONAL SCHOOL.

Salary—Teacher,		$87.00

VOCATIONAL—SPECIAL.

Tuition.		
Holyoke Evening Vocational School,	$35.36	
Smith's Agricultural School of Northampton,	89.43	
		$124.79

OPEN-AIR SCHOOL.

OPERATION.

Salaries.			
Principal,		$1,025.00	
Teachers,		812.50	
			$1,837.50
Salaries—Matron,		360.00	360.00
Stationery Supplies.			
Paper.			
White,	$2.88		
Manila,	1.28		
Notebooks,	.23		
Blotting,	.18		
Envelopes,	.64		
		5.21	
Pens,		.26	
Pencils,		.88	
Thumb tacks and paper fasteners,		.83	
Rubber bands,		.09	
			7.27

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Other Operating Supplies.		
Provisions,	$590.29	
Napkins,	12.60	
Cooking utensils,	6.21	
Miscellaneous,	5.14	
		$614.24
Total,		$2,819.01

GRADED SCHOOLS—DAY.

ADMINISTRATION.

Salaries.		
Supervisors,	$17,219.00	
Supervising Principals,	43,930.13	
		$61,149.13
Salaries.		
Clerical assistance,	600.00	600.00
Stationery and Office Supplies,	74.28	74.28
Account Books, Record Forms, Printing, Ruling, etc.		
Account books,	119.75	
Printing,	1,197.64	
Diplomas,	76.80	
Courses of study,	246.12	
		1,640.31
Communication Service.		
Telephone,	1,377.81	1,377.81
Transportation Service.		
Freight and express,	26.53	26.53
Other Miscellaneous Supplies and Expenses,	565.02	565.02

OPERATION.

Salaries—Teachers,	344,390.26	344,390.26
Salaries—Matrons,	3,000.68	3,000.68
Salaries—Miscellaneous.		
Manual Training assistance,	257.28	
Practical Arts—Boys' assistance,	22.65	
Physical Training assistance,	158.81	
		438.74
Transportation of Pupils,	2,175.00	2,175.00
Text and Reference Books.		
Text,	8,547.94	
Reference,	346.07	
Binding,	1,019.43	
Mending materials,	45.75	
Book covers,	1,485.45	
Writing copies,	226.69	
		11,671.33

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Stationery Supplies.			
Paper.			
White,	$4,185.64		
Manila,	1,153.51		
Drawing,	1,644.54		
Bookkeeping,	285.88		
Notebooks,	603.59		
Envelopes,	305.59		
Blotting,	160.66		
Pressboard and cardboard,	480.37		
Miscellaneous,	51.25		
		$8,871.03	
Ink,		207.81	
Paste, etc.,		157.92	
Pens and holders,		420.50	
Thumb tacks and paper fasteners,		246.46	
Rubber erasers,		298.23	
Rubber bands,		49.71	
Pencils,		947.49	
Miscellaneous,		53.61	
			$11,252.76
Materials and Supplies Used in Special Courses.			
Physical Training.			
Soccer football,	151.90		
Baseball,	135.80		
Field day,	240.01		
Girls' festival,	87.82		
Gymnasium,	83.88		
Phonograph records and music for dances,	62.00		
Miscellaneous,	877.70		
		1,639.11	
Manual Training.			
Lumber,	2,140.16		
Metals,	206.21		
Cement, sand, etc.,	29.59		
Paints, etc.,	375.52		
Hardware,	422.08		
Printing,	170.20		
First-aid supplies,	16.96		
Miscellaneous,	559.04		
		3,919.76	
Practical Arts—Boys.			
Lumber,	777.83		
Metals,	177.39		
Hardware,	294.62		
Printing supplies,	29.00		
Miscellaneous,	254.70		
		1,533.54	
Practical Arts—Girls.			
Provisions,	.97		
Cooking utensils,	159.54		
Sewing supplies,	223.87		
Miscellaneous,	28.17		
		412.55	

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Cooking.			
Provisions,	$1,492.31		
Ice,	38.63		
Cooking utensils,	42.89		
Laundry,	92.68		
Miscellaneous,	1.45		
		$1,667.96	
Sewing.			
Sewing supplies,	12.90		
Miscellaneous,	2.00		
		14.90	
Elementary Science.			
Chemicals and small apparatus,	163.52		
Gardens,	86.40		
Miscellaneous,	10.42		
		260.34	
Psychological Laboratory,	16.21	16.21	
Semi-sighted,	12.21	12.21	
			$9,476.58
Other Operating Supplies.			
Paints,		531.35	
Paint pans and brushes,		77.12	
Drawing crayons,		245.96	
Miscellaneous drawing supplies,		194.56	
Kindergarten materials,		83.12	
Outline maps,		73.75	
Compasses,		123.16	
Rules,		84.40	
Maps, charts and globes,		306.95	
Blackboard erasers,		127.65	
Sponges,		624.68	
Chalk,		122.96	
Pencil sharpeners,		72.50	
Paper cutters,		12.16	
Scissors,		362.00	
Burlap,		23.89	
Paper towels,		976.85	
Mats,		90.58	
Linen towels,		110.00	
Hygiene supplies,		16.05	
Miscellaneous,		392.36	
			4,652.05
Other Operating Expenses,			
Tuning pianos, etc.,		39.00	
Graduation expenses,		204.13	
Miscellaneous,		3.89	
			247.02
Maintenance and Repairs of Equipment.			
Physical Training,		146.15	
Manual Training,		66.61	
Practical Arts—Boys,		1.81	
Cooking,		6.55	
Miscellaneous,		.75	
			221.87

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Replacement of Equipment.		
Physical Training,	$11.75	
Manual Training,	127.64	
Practical Arts—Boys,	162.10	
Cooking,	1.15	
Sewing,	16.14	
Elementary Science,	12.48	
		$331.26
New Equipment.		
Physical Training,	1,257.97	
Manual Training,	177.74	
Practical Arts—Boys,	209.90	
Practical Arts—Girls,	348.23	
Elementary Science,	127.08	
		2,120.92
Total,		$455,411.55

KINDERGARTENS.

OPERATION.

Salaries—Teachers,	$27,387.93	$27,387.93
Supplies,	727.82	727.82
Other Operating Expenses,	51.00	51.00
New Equipment,	76.95	76.95
Total,		$28,243.70

ELEMENTARY EVENING SCHOOLS.

ADMINISTRATION.

Salaries—Principals,	$752.00	$752.00
Salaries—Clerical Assistance,	64.00	64.00
Account Books, Record Forms, Printing, Ruling, etc.,	32.65	32.65

OPERATION.

Salaries—Teachers,	5,985.25	5,985.25
Text and Reference Books,	100.80	100.80
Stationery Supplies,	16.84	16.84
Total,		$6,951.54

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SCHOOLHOUSE AGENT'S DEPARTMENT.

Expenditures in the Schoolhouse Agent's department and expenditures for new school buildings and for alterations and permanent improvements, are made by the Committee on City Property of the City Government, not by the School Board. They are included in this report as a matter of information and convenience.

Schoolhouse Property.

	Appropriations.	Expenditures.	Balances.
Administration,	$5,247.56	$5,417.88	
Operation,	141,827.58	139,831.42	
Maintenance,	61,801.99	42,235.40*	
Total,	$208,877.13	$187,484.70	$21,392.43
Fire Prevention,	32,650.00	32,142.21	507.79
Total,	$241,527.13	$219,626.91	$21,900.22

*Includes $4,441.01 expended for alterations of old buildings and $8,741.76 for five new portable rooms.

Expenditures for New Buildings.

High School of Commerce,	$22,905.62
Technical High School,	44,592.68
Brightwood School,	96.95
Buckingham School,	2,260.64
New Hooker School,	19,527.12
Howard Street School,	53,851.44
Myrtle Street School,	539.54
Worthington Street School,	10,948.23
	$154,722.22
New Portable Buildings,	8,741.76†
	$163,463.98

†Included in expenditures for maintenance of Schoolhouse Property.

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RECEIPTS.

	Tuition.	From Commonwealth	Books, Materials sold, etc.	Moving Pictures.	Credits to Estimated Revenue Account.	Total.
Administration,					$22.50	$22.50
Central High School,	$4,846.00					4,846.00
Technical High School,	11,005.00		$212.14			11,217.14
Evening School of Trades,	1,739.66		25.40			1,765.06
High School of Commerce,	6,155.00		55.50	$308.50	522.50	7,041.50
Evening High School,	676.12					676.12
Vocational School,	3,130.00	$6,466.54	885.28			10,481.82
Vocational Evening School,	14.00					14.00
Graded Schools—Day,	703.46	433.00	30.00			1,166.46
	$28,269.24	$6,899.54	$1,208.32	$308.50	$545.00	$37,230.60

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COST PER PUPIL.

(Based on average number belonging during fiscal year.)

SCHOOLS.	Teachers' Salaries.	Books.	Supplies and Other Expenses of Instruction.	Repair and Replacement of Equipment.	Transportation of Pupils.	New Equipment.	Total.	Administration and Other Expenses.	Total.
Central High,	$75.49	$3.54	$6.43	$0.34	....	$0.20	$86.00	$2.71	$88.71
High School of Commerce,	68.26	1.99	10.48	.80	....	2.82	79.35	2.50	81.85
Technical High,	85.49	2.01	9.08	.46	....	1.37	98.41	3.10	101.51
Vocational	133.04	1.19	56.02	6.28	....	19.84	216.37	6.83	223.20
Open-Air,	50.07	....	26.74	....	....	....	76.81	2.40	79.21
Graded—Day,	29.86	.86	2.46	.04	$0.16	.16	33.54	1.06	34.60
Kindergartens,	27.94	....	.79	....	....	.08	28.81	.91	29.72
Evening High,	7.39	.78	1.25	....	....	.10	9.52	.30	9.82
Evening Trades,	17.88	....	2.13	.07	....	.18	20.26	.07	20.33
Evening Elementary,	9.71	.15	.16	....	....	....	10.02	.32	10.34
AVERAGES.									
Day—High,	$74.74	$2.52	$8.65	$0.53	....	$1.46	$87.90	$2.78	$90.68
Day—Elementary,	30.43	.80	2.74	.08	$0.15	.27	34.47	1.09	35.56
All DAY Schools,	37.01	1.06	3.62	.14	.13	.45	42.41	1.34	43.75
All EVENING Schools,	10.24	.39	.99	.01	....	.08	11.71	.37	12.08

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SUMMARY,
SCHOOL ENROLLMENT AND ATTENDANCE.

(For the school year, September 8, 1914—June 30, 1915.)

SCHOOLS.	Enrollment.	Average Number Belonging.	Average Number Attending.	*Per cent. of Attendance.
High,	2,734	2,546.4	2,386.3	93.7
Grammar and Primary,	15,580	13,606.7	12,615.3	92.5
Kindergartens,	1,883	1,005.4	790.1	78.6
All day schools,	20,197	17,158.5	15,791.7	91.9
Evening High,	1,114	769.3	574.4	74.7
Evening Grammar and Primary,	1,547	761.9	592.0	77.7
Evening Trades Classes,	759	244.1	201.7	82.8
All evening schools,	3,420	1,775.3	1,368.1	77.3

*Obtained by dividing aggregate attendance by aggregate membership.

SCHOOL CENSUS.

Population of City, 1915 (State Census)..... 102,941
Population of City, 1916 (Assessors' Estimate)..... 110,000

Number of children in Springfield between five and sixteen years of age:

September 1, 1910..... 14,659
September 1, 1911..... 15,221
September 1, 1912..... 15,915
September 1, 1913..... 16,855
September 1, 1914..... 17,480
September 1, 1915..... 18,129

School census for 1916-1917 will not be taken until April 1, 1917.

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NUMBER OF TEACHERS' POSITIONS. DAY SCHOOLS.

(For the school year, September 7, 1915—June 30, 1916.)

	First Semester.			Second Semester.		
	Men.	Women.	Total.	Men.	Women.	Total.
Supervisors,	3	8	11	3	9	12
Supervising Principals, High,	3	0	3	3	0	3
Heads of Departments, High,	14	6	20	13	6	19
Full time teachers, High,	36	82	118	40	85	125
Part time teachers, High,	0	3	3	0	3	3
Full time teachers, High and Practical Arts,	1	0	1	1	0	1
Supervising Principal, Vocational, and Supervisor of Manual Training,	1	0	1	1	0	1
Regular teachers, Vocational,	7	0	7	7	0	7
Supervising Principals, Primary and Grammar,	9	16	25	9	16	25
Assistants to Supervising Principals, Primary and Grammar,	0	15	15	0	15	15
Principals who devote half or more than half their time to teaching,	0	6	6	0	6	6
Assistants to Principals who teach,	0	1	1	0	1	1
Regular teachers in charge of room,	2	329	331	1	327	328
Regular teachers not in charge of room,	0	4	4	0	3	3
Teachers of ungraded schools,	0	4	4	0	4	4
Teachers of special rooms,	1	19	20	1	21	22
Assistants to teachers of special rooms,	0	1	1	0	1	1
General substitutes,	0	2	2	0	2	2
Kindergarten teachers,	0	16	16	0	16	16
Assistants to Kindergarten teachers,	0	23	23	0	23	23
Teachers of special subjects not in charge of room—						
Manual Training,	8	1	9	7	1	8
Practical Arts,	2	0	2	2	2	4
Practical Arts, special,	0	1	1	1	1	2
Sewing,	0	2	2	0	2	2
Cooking and Sewing,	0	7	7	0	7	7
Cooking and Sewing (part time),	0	1	1	0	1	1
Drawing,	0	4	4	0	4	4
German,	0	4	4	0	4	4
Visiting teacher,	0	1	1	0	1	1
Director of Psychological Laboratory,	1	0	1	1	0	1
Director of High Schools Lunch Department,	0	1	1	0	1	1
Total,	88	557	645	90	562	652

EVENING SCHOOLS.

(School term, October 11, 1915—March 30, 1916.)

	Men.	Women.	Total.
Principals, High,	1	0	1
Teachers, High,	17	16	33
Principals, Trades,	1	0	1
Teachers, Trades,	18	9	27
Principals, Elementary,	2	1	3
Teachers, Elementary,	2	50	52
Total,	41	76	117

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CENTRAL HIGH SCHOOL.

DISTRIBUTION OF PUPILS BY AGES AND CLASSES, OCTOBER 27, 1916.

CLASS.	AGE.	12	13	14	15	16	17	18	19	20	21	22	23	24	Totals.	
Post-Graduate	Boys.						1	1	5		1				7	13
	Girls.							3	1		1				6	
Senior A	Boys.					1	5	5	2						15	37
	Girls.					3	11	6	2		1				22	
Senior B	Boys.					1	7	11	2	1					33	93
	Girls.					2	13	32	9	4					60	
Junior A	Boys.					1	11	14	4	5	1			1	37	77
	Girls.					4	19	9	5	2	1				40	
Junior B	Boys.				3	6	27	8	5	3		2	2		56	125
	Girls.				2	13	28	15	8	2		1			69	
Sophomore A	Boys.			1	2	17	20	9	3					1	53	99
	Girls.				2	13	20	8	3						46	
Sophomore B	Boys.			3	10	20	9	3	4				1		49	127
	Girls.			8	12	28	16	11	2						78	
Freshman A	Boys.			2	12	20	17	4	1						56	109
	Girls.			6	13	15	17	1	1						53	
Freshman B	Boys.	2	13	22	21	16	2	5			1	1	1	1	85	172
	Girls.	6	13	40	20	8									87	
Totals			8	46	118	182	232	144	76	28	4	7	4	2	1	852

AVERAGE AGES.

CLASS.		Average Age.	Oldest.	Youngest.	Av. Age of Class.
Post-Graduate	Boys.	18-8	21-4	18-3	18-6
	Girls.	18-5	19-3	17-9	
Senior A	Boys.	17-6	21-0	15-5	17-4
	Girls.	17-3	19-11	16-2	
Senior B	Boys.	17-3	20-7	15-11	17-1
	Girls.	17-0	19-3	15-1	
Junior A	Boys.	17-2	20-3	15-10	16-9
	Girls.	16-6	20-2	15-6	
Junior B	Boys.	16-1	22-8	14-11	16-4
	Girls.	16-6	21-2	14-5	
Sophomore A	Boys.	15-8	24-5	13-9	15-8
	Girls.	15-8	18-8	12-11	
Sophomore B	Boys.	15-2	18-7	13-6	15-2
	Girls.	15-2	21-11	12-11	
Freshman A	Boys.	15-4	17-8	13-0	15-1
	Girls.	14-8	18-9	13-5	
Freshman B	Boys.	14-0	23-1	12-9	14-1
	Girls.	14-1	17-0	12-7	

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CENTRAL HIGH SCHOOL—Continued.

DISTRIBUTION OF PUPILS BY CLASSES AND COURSES.

CLASS.		College Preparatory	General.	Totals.	
Post-Graduate	Boys.	7		7	
	Girls.	4	2	6	13
Senior A	Boys.	13	2	15	
	Girls.	6	16	22	37
Senior B	Boys.	29	4	33	
	Girls.	33	27	60	93
Junior A	Boys.	32	5	37	
	Girls.	18	22	40	77
Junior B	Boys.	50	7	57	
	Girls.	46	22	68	125
Sophomore A	Boys.	47	6	53	
	Girls.	30	16	46	99
Sophomore B	Boys.	46	3	49	
	Girls.	45	33	78	127
Freshman A	Boys.	52	4	56	
	Girls.	33	20	53	109
Freshman B	Boys.	75	10	85	
	Girls.	52	35	87	172
Totals.		618	234		852

TECHNICAL HIGH SCHOOL.

DISTRIBUTION OF PUPILS BY AGES AND CLASSES, OCTOBER 27, 1916.

CLASS.	AGE.	12	13	14	15	16	17	18	19	20	21	22	23	Totals.	
Post-Graduate.	Boys.							1		1				2	
	Girls.										1			1	3
Senior A.	Boys.						3	6	3	1				13	
	Girls.					2	1	6	4	2				15	28
Senior B.	Boys.					4	15	13	5	2				39	
	Girls.					3	11	8	5		1			28	67
Junior A.	Boys.				2	8	14	16	9	4				53	
	Girls.					7	13	5	2	1				28	81
Junior B.	Boys.			1	8	28	30	11	3	2				83	
	Girls.				2	15	11	8		2				38	121
Sophomore A.	Boys.				18	24	13	9						64	
	Girls.			1	5	10	6	4						26	90
Sophomore B.	Boys.			15	40	34	21	4	1	1				116	
	Girls.			8	20	13	15							56	172
Freshman A.	Boys.		2	23	28	13	3	1		1				71	
	Girls.				4	3		2			1			10	81
Freshman B.	Boys.	1	14	60	52	23	7	1					1	159	
	Girls.		4	18	23	10	2							57	216
Totals.		1	20	126	202	197	165	95	32	17	3		1		859

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HIGH SCHOOL GRADUATES.

(For the school year, September 7, 1915—June 30, 1916.)

	TOTALS.			COURSES.											
				College Preparatory.			General.			Commercial.			Scientific.		
	Totals	Boys	Girls	Totals	Boys	Girls	Totals	Boys	Girls	Totals	Boys	Girls	Totals	Boys	Girls
CENTRAL HIGH.															
February, 1916,	35	16	19	6	5	1	29	11	18	...	..	..	..	..	..
June, 1916,	100	46	54	34	14	20	66	32	34	...	..	..	..	..	..
Total,	135	62	73	40	19	21	95	43	52	...	..	..	..	..	..
HIGH SCHOOL OF COMMERCE.															
February, 1916,	44	13	31	..	..	..	..	..	..	44	13	31	..	..	..
June, 1916,	57	16	41	..	..	..	..	..	..	57	16	41	..	..	..
Total,	101	29	72	..	..	..	..	..	..	101	29	72	..	..	..
TECHNICAL HIGH.															
February, 1916,	36	18	23	5	2	3	..	..	..	...	..	..	31	11	20
June, 1916,	88	46	42	26	23	3	..	..	..	...	..	..	62	23	39
Total,	124	59	65	31	25	6	..	..	..	....	..	..	93	34	59
TOTALS FOR ALL HIGH SCHOOLS.															
February, 1916,	115	42	73	11	7	4	29	11	18	44	13	31	31	11	20
June, 1916,	245	108	137	60	37	23	66	32	34	57	16	41	62	23	39
Total,	360	150	210	71	44	27	95	43	52	101	29	72	93	34	59

VOCATIONAL SCHOOL GRADUATES.

(For the school year, September 7, 1915—June 30, 1916.)

		COURSES.		
	Totals.	Cabinet.	Machine.	Pattern.
February, 1916,	1	0	1	0
June, 1916,	1	0	1	0
Total,	2	0	2	0

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CENTRAL HIGH SCHOOL—Continued.

DISTRIBUTION OF PUPILS BY CLASSES AND COURSES.

CLASS.		College Preparatory	General.	Totals.	
Post-Graduate	Boys.	7		7	
	Girls.	4	2	6	13
Senior A	Boys.	13	2	15	
	Girls.	6	16	22	37
Senior B	Boys.	29	4	33	
	Girls.	33	27	60	93
Junior A	Boys.	32	5	37	
	Girls.	18	22	40	77
Junior B	Boys.	50	7	57	
	Girls.	46	22	68	125
Sophomore A	Boys.	47	6	53	
	Girls.	30	16	46	99
Sophomore B	Boys.	46	3	49	
	Girls.	45	33	78	127
Freshman A	Boys.	52	4	56	
	Girls.	33	20	53	109
Freshman B	Boys.	75	10	85	
	Girls.	52	35	87	172
Totals.		618	234		852

TECHNICAL HIGH SCHOOL.

DISTRIBUTION OF PUPILS BY AGES AND CLASSES, OCTOBER 27, 1916.

CLASS.	AGE.	12	13	14	15	16	17	18	19	20	21	22	23	Totals.	
Post-Graduate.	Boys.							1		1				2	
	Girls.										1			1	3
Senior A	Boys.						3	6	3	1				13	
	Girls.					2	1	6	4	2				15	28
Senior B	Boys.					4	15	13	5	2				39	
	Girls.					8	11	8	5		1			28	67
Junior A	Boys.				2	8	14	16	9	4				53	
	Girls.					7	13	5	2	1				28	81
Junior B	Boys.			1	8	28	30	11	3	2				83	
	Girls.				2	15	11	8		2				38	121
Sophomore A.	Boys.				18	24	13	9						64	
	Girls.			1	5	10	6	4						26	90
Sophomore B.	Boys.			15	40	34	21	4	1	1				116	
	Girls.			8	20	13	15							56	172
Freshman A	Boys.		2	23	28	13	3	1		1				71	
	Girls.				4	3		2			1			10	81
Freshman B	Boys.	1	14	60	52	23	7	1					1	159	
	Girls.		4	18	23	10	2							57	216
Totals.		1	20	126	202	197	165	95	32	17	3		1		859

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SUMMARY,
SCHOOL ENROLLMENT AND ATTENDANCE.

(For the school year, September 8, 1914—June 30, 1915.)

SCHOOLS.	Enrollment.	Average Number Belonging.	Average Number Attending.	*Per cent. of Attendance.
High,	2,734	2,546.4	2,386.3	93.7
Grammar and Primary,	15,580	13,606.7	12,615.3	92.5
Kindergartens,	1,883	1,005.4	790.1	78.6
All day schools,	20,197	17,158.5	15,791.7	91.9
Evening High,	1,114	769.3	574.4	74.7
Evening Grammar and Primary,	1,547	761.9	592.0	77.7
Evening Trades Classes,	759	244.1	201.7	82.8
All evening schools,	3,420	1,775.3	1,368.1	77.3

*Obtained by dividing aggregate attendance by aggregate membership.

SCHOOL CENSUS.

Population of City, 1915 (State Census)..... 102,941
Population of City, 1916 (Assessors' Estimate)..... 110,000

Number of children in Springfield between five and sixteen years of age:

September 1, 1910..... 14,659
September 1, 1911..... 15,221
September 1, 1912..... 15,915
September 1, 1913..... 16,855
September 1, 1914..... 17,480
September 1, 1915..... 18,129

School census for 1916-1917 will not be taken until April 1, 1917.

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NUMBER OF TEACHERS' POSITIONS. DAY SCHOOLS.

(For the school year, September 7, 1915—June 30, 1916.)

	First Semester.			Second Semester.		
	Men.	Women.	Total.	Men.	Women.	Total.
Supervisors,	3	8	11	3	9	12
Supervising Principals, High,	3	0	3	3	0	3
Heads of Departments, High,	14	6	20	13	6	19
Full time teachers, High,	36	82	118	40	85	125
Part time teachers, High,	0	3	3	0	3	3
Full time teachers, High and Practical Arts,	1	0	1	1	0	1
Supervising Principal, Vocational, and Supervisor of Manual Training,	1	0	1	1	0	1
Regular teachers, Vocational,	7	0	7	7	0	7
Supervising Principals, Primary and Grammar,	9	16	25	9	16	25
Assistants to Supervising Principals, Primary and Grammar,	0	15	15	0	15	15
Principals who devote half or more than half their time to teaching,	0	6	6	0	6	6
Assistants to Principals who teach,	0	1	1	0	1	1
Regular teachers in charge of room,	2	329	331	1	327	328
Regular teachers not in charge of room,	0	4	4	0	3	3
Teachers of ungraded schools,	0	4	4	0	4	4
Teachers of special rooms,	1	19	20	1	21	22
Assistants to teachers of special rooms,	0	1	1	0	1	1
General substitutes,	0	2	2	0	2	2
Kindergarten teachers,	0	16	16	0	16	16
Assistants to Kindergarten teachers,	0	23	23	0	23	23
Teachers of special subjects not in charge of room—						
Manual Training,	8	1	9	7	1	8
Practical Arts,	2	0	2	2	2	4
Practical Arts, special,	0	1	1	1	1	2
Sewing,	0	2	2	0	2	2
Cooking and Sewing,	0	7	7	0	7	7
Cooking and Sewing (part time),	0	1	1	0	1	1
Drawing,	0	4	4	0	4	4
German,	0	4	4	0	4	4
Visiting teacher,	0	1	1	0	1	1
Director of Psychological Laboratory,	1	0	1	1	0	1
Director of High Schools Lunch Department,	0	1	1	0	1	1
Total,	88	557	645	90	562	652

EVENING SCHOOLS.

(School term, October 11, 1915—March 30, 1916.)

	Men.	Women.	Total.
Principals, High,	1	0	1
Teachers, High,	17	16	33
Principals, Trades,	1	0	1
Teachers, Trades,	18	9	27
Principals, Elementary,	2	1	3
Teachers, Elementary,	2	50	52
Total,	41	76	117

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HIGH SCHOOL GRADUATES.

(For the school year, September 7, 1915—June 30, 1916.)

	TOTALS.			COURSES.											
				College Preparatory.			General.			Commercial.			Scientific.		
	Totals	Boys	Girls	Totals	Boys	Girls	Totals	Boys	Girls	Totals	Boys	Girls	Totals	Boys	Girls
CENTRAL HIGH.															
February, 1916,	35	16	19	6	5	1	29	11	18	...	..	..	..	..	..
June, 1916,	100	46	54	34	14	20	66	32	34	...	..	..	..	..	..
Total,	135	62	73	40	19	21	95	43	52	...	..	..	..	..	..
HIGH SCHOOL OF COMMERCE.															
February, 1916,	44	13	31	..	..	..	..	..	..	44	13	31	..	..	..
June, 1916,	57	16	41	..	..	..	..	..	..	57	16	41	..	..	..
Total,	101	29	72	..	..	..	..	..	..	101	29	72	..	..	..
TECHNICAL HIGH.															
February, 1916,	36	18	23	5	2	3	..	..	..	...	..	..	31	11	20
June, 1916,	88	46	42	26	23	3	..	..	..	...	..	..	62	28	39
Total,	124	59	65	31	25	6	..	..	..	...	..	..	93	34	59
TOTALS FOR ALL HIGH SCHOOLS.															
February, 1916,	115	42	73	11	7	4	29	11	18	44	13	31	31	11	20
June, 1916,	245	108	137	60	37	23	66	32	34	57	16	41	62	23	39
Total,	360	150	210	71	44	27	95	43	52	101	29	72	93	34	59

VOCATIONAL SCHOOL GRADUATES.

(For the school year, September 7, 1915—June 30, 1916.)

	Totals.	COURSES.		
		Cabinet.	Machine.	Pattern.
February, 1916,	1	0	1	0
June, 1916,	1	0	1	0
Total,	2	0	2	0

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CENTRAL HIGH SCHOOL.

DISTRIBUTION OF PUPILS BY AGES AND CLASSES, OCTOBER 27, 1916.

CLASS.	AGE.	12	13	14	15	16	17	18	19	20	21	22	23	24	Totals.	
Post-Graduate.....	Boys.							1	5		1				7	13
	Girls.						1	3	1		1				6	
Senior A.....	Boys.				1	1	5	5	2		1				15	37
	Girls.					3	11	6	2						22	
Senior B.....	Boys.				1	7	11	11	2	1					33	93
	Girls.				2	13	32	9	4						60	
Junior A.....	Boys.				1	11	14	4	5	1			1		37	77
	Girls.				4	19	9	5	2	1					40	
Junior B.....	Boys.			3	6	27	8	5	3		2	2			56	125
	Girls.			2	13	28	15	8	2		1				69	
Sophomore A.....	Boys.		1	2	17	20	9	3						1	53	99
	Girls.			2	13	20	8	3							46	
Sophomore B.....	Boys.		3	10	20	9	3	4							49	127
	Girls.		8	12	28	16	11	2				1			78	
Freshman A.....	Boys.		2	12	20	17	4	1							56	109
	Girls.		6	13	15	17	1	1							53	
Freshman B.....	Boys.	2	13	22	21	16	2	5		1	1	1	1		85	172
	Girls.	6	13	40	20	8									87	
Totals.....		8	46	118	182	232	144	76	28	4	7	4	2	1		852

AVERAGE AGES.

CLASS.		Average Age.	Oldest.	Youngest.	Av. Age of Class.
Post-Graduate.....	Boys.	18-8	21-4	18-3	18-6
	Girls.	18-5	19-3	17-9	
Senior A.....	Boys.	17-6	21-0	15-5	17-4
	Girls.	17-3	19-11	16-2	
Senior B.....	Boys.	17-3	20-7	15-11	17-1
	Girls.	17-0	19-3	15-1	
Junior A.....	Boys.	17-2	20-3	15-10	16-9
	Girls.	16-6	20-2	15-6	
Junior B.....	Boys.	16-1	22-8	14-11	16-4
	Girls.	16-6	21-2	14-5	
Sophomore A.....	Boys.	15-8	24-5	13-9	15-8
	Girls.	15-8	18-8	12-11	
Sophomore B.....	Boys.	15-2	18-7	13-6	15-2
	Girls.	15-2	21-11	12-11	
Freshman A.....	Boys.	15-4	17-8	13-0	15-1
	Girls.	14-8	18-9	13-5	
Freshman B.....	Boys.	14-0	23-1	12-9	14-1
	Girls.	14-1	17-0	12-7	

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CENTRAL HIGH SCHOOL—Continued.

DISTRIBUTION OF PUPILS BY CLASSES AND COURSES.

CLASS.		College Preparatory	General.	Totals.	
Post-Graduate	Boys.	7		7	
	Girls.	4	2	6	13
Senior A	Boys.	13	2	15	
	Girls.	6	16	22	37
Senior B	Boys.	29	4	33	
	Girls.	33	27	60	93
Junior A	Boys.	32	5	37	
	Girls.	18	22	40	77
Junior B	Boys.	50	7	57	
	Girls.	46	22	68	125
Sophomore A	Boys.	47	6	53	
	Girls.	30	16	46	99
Sophomore B	Boys.	46	3	49	
	Girls.	45	33	78	127
Freshman A	Boys.	52	4	56	
	Girls.	33	20	53	109
Freshman B	Boys.	75	10	85	
	Girls.	52	35	87	172
Totals,		618	234		852

TECHNICAL HIGH SCHOOL.

DISTRIBUTION OF PUPILS BY AGES AND CLASSES, OCTOBER 27, 1916.

CLASS.	AGE.	12	13	14	15	16	17	18	19	20	21	22	23	Totals.	
Post-Graduate.	Boys.							1		1				2	
	Girls.										1			1	3
Senior A	Boys.						3	6	3	1				13	
	Girls.					2	1	6	4	2				15	28
Senior B	Boys.					4	15	13	5	2				39	
	Girls.					3	11	8	5		1			28	67
Junior A	Boys.				2	8	14	16	9	4				53	
	Girls.					7	13	5	2	1				28	81
Junior B	Boys.			1	8	28	30	11	3	2				83	
	Girls.				2	15	11	8		2				38	121
Sophomore A.	Boys.				18	24	13	9						64	
	Girls.			1	5	10	6	4						26	90
Sophomore B.	Boys.			15	40	34	21	4	1	1				116	
	Girls.			8	20	13	15							56	172
Freshman A	Boys.		2	23	28	13	3	1		1				71	
	Girls.				4	3		2			1			10	81
Freshman B	Boys.	1	14	60	52	23	7	1					1	159	
	Girls.		4	18	23	10	2							57	216
Totals.		1	20	126	202	197	165	95	32	17	3		1		859

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TECHNICAL HIGH SCHOOL—Continued.

AVERAGE AGES.

CLASS.		Average Age.	Oldest.	Youngest.	Average Age of Class.
Post-Graduate.....	Boys.	19-8	20-6	18-9	20-6
	Girls.	21-4	21-4	21-4	
Senior A.....	Boys.	18-7	20-6	17-1	18-7
	Girls.	18-8	20-2	16-8	
Senior B.....	Boys.	18-1	20-4	16-8	18-1
	Girls.	18-2	21-11	16-4	
Junior A.....	Boys.	18-1	20-5	15-1	17-11
	Girls.	17-8	20-4	16-8	
Junior B.....	Boys.	17-2	20-3	14-10	17-2
	Girls.	17-3	20-8	15-5	
Sophomore A.....	Boys.	16-8	18-11	15-1	16-8
	Girls.	16-9	18-10	14-11	
Sophomore B.....	Boys.	16-2	20-5	14-0	16-2
	Girls.	16-1	17-10	14-4	
Freshman A.....	Boys.	15-5	20-11	13-10	15-3
	Girls.	16-9	21-6	15-1	
Freshman B.....	Boys.	15-1	23-5	12-4	15-2
	Girls.	15-3	17-1	13-3	

DISTRIBUTION OF PUPILS BY CLASSES AND COURSES.

CLASS.		Scientific.	College Prep.	Totals.	
Post-Graduate.....	Boys.		2	2	3
	Girls.	1		1	
Senior A.....	Boys.	6	7	13	28
	Girls.	12	3	15	
Senior B.....	Boys.	15	24	39	67
	Girls.	20	8	28	
Junior A.....	Boys.	24	29	53	81
	Girls.	27	1	28	
Junior B.....	Boys.	37	46	83	121
	Girls.	34	4	38	
Sophomore A.....	Boys.	42	22	64	90
	Girls.	20	6	26	
Sophomore B.....	Boys.	64	52	116	172
	Girls.	43	13	56	
Freshman A.....	Boys.	41	30	71	81
	Girls.	7	3	10	
Freshman B.....	Boys.	113	46	159	216
	Girls.	50	7	57	
Totals,	Boys.	342	258	600	859
	Girls.	214	45	259	

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HIGH SCHOOL OF COMMERCE

DISTRIBUTION OF PUPILS BY AGES AND CLASSES, OCTOBER 27, 1916.

CLASS.	AGE.	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	30	33	35	Totals.	
Salesmanship	Girls.				2	2	1	1	3	3	1		1			1	1	1	1	18	18
Post-Graduate	Boys.						1													1	
	Girls.						7	3	6	2	2	4	2	2	1					29	30
Senior A	Boys.						3	4	4											11	
	Girls.					4	22	14	2	1										43	54
Senior B	Boys.					4	8	3												15	
	Girls.				2	13	32	12	3											62	77
Junior A	Boys.				2	6	7	3	3											21	
	Girls.				7	19	20	4	1	1										52	73
Junior B	Boys.			3	9	10	11	5												38	
	Girls.		1		32	19	13	2												67	105
Sophomore A	Boys.		3	3	6	7	3	1	1		1									25	
	Girls.			6	26	24	10	3	1											70	95
Sophomore B	Boys.	1	2	13	16	7	5	1	1	1										47	
	Girls.		5	31	35	17	3	2												93	140
Freshman A	Boys.		1	17	12	10	2													42	
	Girls.		10	18	39	7	3	1												78	120
Freshman B	Boys.	1	12	26	19	3	1	1	1											64	
	Girls.	12	52	72	28	6	2	1	1											174	238
Totals		14	86	189	235	158	154	61	27	8	4	4	3	2	1	1	1	1	1	264	
																				686	950

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HIGH SCHOOL OF COMMERCE.

OCTOBER 27, 1916.

AVERAGE AGES.

CLASS.		Average Age.	Oldest.	Youngest.	Average Age of Class.
Salesmanship....	Girls.	22-1	35-0	16-1	22-1
Post-Graduate...	Boys.	18-8	18-8	18-8	20-9
	Girls.	20-10	25-10	17-11	
Senior A.....	Boys.	20-0	20-1	17-9	18-9
	Girls.	18-5	20-7	16-11	
Senior B.....	Boys.	17-11	19-1	16-8	18-0
	Girls.	18-1	19-11	16-0	
Junior A.....	Boys.	17-11	20-2	16-5	17-8
	Girls.	17-6	20-7	16-2	
Junior B.....	Boys.	17-2	18-11	15-1	16-11
	Girls.	16-9	19-0	14-4	
Sophomore A...	Boys.	16-8	19-7	14-0	16-8
	Girls.	16-8	19-8	14-6	
Sophomore B...	Boys.	16-2	21-3	12-9	16-0
	Girls.	15-10	18-8	13-11	
Freshman A.....	Boys.	15-11	17-9	14-5	15-9
	Girls.	15-7	18-3	13-6	
Freshman B.....	Boys.	15-4	19-9	12-11	15-0
	Girls.	14-10	19-11	12-11	

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AVERAGE AGE IN EACH GRADE, OCTOBER 27, 1916.

GRADES.	IB.	IA.	IIB.	IIA.	IIIB.	IIIA.	IVB.	IVA.	VB.	VA.	VIB.	VIA.	VIIB.	VIIA.	VIIIB.	VIIIA.	IXB.	IXA.
Acushnet Avenue,	6-0	6-10	7-3	7-8	8-3	9-0	9-7	10-6	10-8	....	....	....	....	....	....	....	....	....
Alden Street,	5-6	6-9	7-0	7-8	7-9	8-11	9-1	....	....	....	....	....	....	....	....	....	....	....
Armory Street,	5-8	6-3	6-10	7-5	7-9	8-5	8-11	9-4	10-5	11-0	11-5	11-8	12-5	12-10	....	....	....	....
Barrows,	....	....	....	....	....	....	....	10-2	10-9	11-1	11-11	12-2	12-4	12-11	....	....	....	....
Boston Road,	5-8	6-0	7-0	7-5	8-9	8-4	....	10-0	11-3	11-3	11-8	....	12-3	....	....	....	....	....
Brightwood,	6-2	6-11	6-11	8-0	8-5	9-0	9-4	10-4	10-9	11-1	11-8	....	....	....	....	....	....	....
Buckingham,	....	....	....	....	....	....	....	9-7	10-5	10-4	11-6	11-1	12-1	12-7	13-1	13-7	14-3	14-6
Carew Street,	5-9	6-9	7-0	7-10	8-11	9-3	9-6	10-2	10-10	11-4	11-7	....	....	....	....	....	....	....
Central Street,	5-7	6-6	6-9	7-4	7-10	8-2	8-11	9-10	10-6	10-7	11-7	11-11	12-3	12-7	13-5	13-4	13-8	14-7
Charles Street,	5-8	6-8	7-7	7-6	7-9	9-0	9-11	....	....	....	....	....	....	....	....	....	....	....
Chestnut Street,	....	....	....	....	....	....	....	9-6	9-10	11-5	11-6	12-4	12-2	12-10	13-2	13-7	14-0	14-5
Eastern Avenue,	5-8	6-6	7-5	8-2	7-6	9-5	10-2	9-10	10-2	12-1	....	....	....	....	....	....	....	....
East Main Street, I. O.,	6-1	6-3	7-7	7-3	8-5	10-9	10-4	9-10	....	....	....	....	....	....	....	....	....	....
East Union Street,	6-3	6-7	7-6	7-10	8-7	9-4	9-4	10-0	....	....	....	....	....	....	....	....	....	....
Forest Park,	....	....	....	....	....	....	....	....	....	....	11-0	11-10	12-2	12-8	13-3	13-5	14-3	14-1
Forest Park Portable,	5-10	6-6	7-3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Glenwood,	6-0	6-7	6-9	7-0	7-9	....	9-2	9-0	....	....	....	....	....	....	....	....	....	....
Homer Street,	5-9	6-3	6-1	7-7	7-10	8-6	9-1	....	....	....	....	....	....	....	....	....	....	....
Hooker,	5-3	6-8	7-5	8-1	8-7	9-4	10-1	10-6	10-11	11-3	11-5	....	....	....	....	....	....	....
Howard Street,	5-11	6-11	7-5	7-11	8-6	9-8	10-1	10-7	11-3	11-11	11-11	12-6	12-8	12-11	....	....	....	....
Jefferson Avenue,	5-10	6-2	6-8	7-5	8-2	8-6	9-1	....	....	....	....	....	....	....	....	....	....	....
Kensington Avenue,	5-7	6-1	6-7	8-4	8-0	8-5	8-11	9-9	10-2	10-10	....	....	....	....	....	....	....	....
Lincoln,	5-8	6-7	7-2	7-9	8-0	8-6	9-6	9-10	10-2	10-11	11-5	11-9	12-3	12-7	....	....	....	....
Myrtle Street, I. O.,	6-0	6-3	6-11	7-7	8-1	8-10	9-0	9-10	11-6	11-2	12-0	12-5	12-9	12-8	13-5	13-5	14-0	13-9
Rushville,	6-1	8-1	6-4	....	7-10	8-10	9-2	9-4	....	....	....	....	....	....	....	....	....	....
School Street,	5-9	6-5	6-8	7-8	8-1	8-4	8-11	9-9	10-1	10-3	11-1	....	....	....	....	....	....	....
State Street,	....	....	....	....	....	....	....	....	....	....	....	11-6	12-6	12-0	13-4	13-6	13-11	14-5
Strickland,	6-0	6-10	7-1	7-8	8-5	8-4	9-5	....	....	....	....	....	....	....	....	....	....	....
Sumner Avenue,	5-9	6-5	6-7	7-0	7-8	8-1	8-10	9-4	9-11	....	10-9	....	....	....	....	....	....	....
Tapley,	5-3	6-4	6-10	7-4	7-10	8-8	8-11	9-3	9-6	10-10	11-3	11-5	....	....	....	....	....	....
White Street,	5-10	6 4	6-9	7-6	7-6	8-7	9-8	9-11	10-5	10-9	11-9	11-8	....	....	....	....	....	....
William Street,	6-1	7-2	7-9	7-7	8-10	8-7	....	....	....	....	....	....	....	....	....	....	....	....
Worthington Street,	5-10	6-9	7-2	8-1	8-10	9-7	10-4	10-6	11-2	12-4	12-3	13-1	12-6	12-10	....	....	....	....
Average,	5-9	6-7	7-0	7-7	8-2	8-10	9-4	9-10	10-6	11-1	11-6	11-11	12-4	12-8	13-3	13-5	14-0	14-3

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TABLE SHOWING THE GRADUAL DROPPING OUT OF PUPILS IN THE VARIOUS GRADES.

NUMBER OF PUPILS IN EACH GRADE.

	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Freshman.	Sophomore.	Junior.	Senior.	Post-Grad.
January, 1891,	1234	766	681	577	511	408	295	260	221					
January, 1892,	1307	893	841	541	522	468	327	245	232					
January, 1893,	1311	1013	918	648	483	477	350	236	230					
January, 1894,	1434	990	996	659	584	505	342	238	248					
September, 1894,	1618	936	1030	795	640	530	350	266	250	174	154	69	63	
September, 1895,	1539	1053	1035	794	724	513	445	277	263	177	126	96	65	
September, 1896,	1723	1020	1180	817	785	621	460	283	258	204	118	86	104	
September, 1897,	1731	1134	1211	980	789	754	474	381	274	206	159	93	88	15
September, 1898,	1775	1145	1287	965	875	657	635	382	299	227	159	123	80	22
September, 1899,	1789	1174	1243	1029	952	786	559	486	380	243	174	130	114	13
September, 1900,	1717	1068	1294	1107	904	884	621	463	380	293	206	142	83	28
September, 1901,	1717	1265	1226	1152	1024	892	759	548	378	298	212	68	104	26
September, 1902,	1685	1297	1276	1088	1135	903	768	655	416	316	214	179	124	27
September, 1903,	1773	1319	1180	1341	1072	986	799	633	464	390	260	172	132	18
September, 1904,	1610	1314	1265	1260	1025	984	912	639	478	433	335	207	121	26
September, 1905,	1663	1293	1271	1266	1140	977	891	661	560	350	248	229	132	16
September, 1906,	1484	1375	1267	1249	1151	1025	941	712	514	509	338	236	185	16
September, 1907,	1565	1348	1283	1221	1203	1059	970	792	593	464	353	272	176	16
September, 1908,	1679	1515	1225	1339	1134	1164	974	914	650	584	363	292	192	38
September, 1909,	1850	1395	1352	1264	1176	1122	995	924	741	638	409	299	225	35
September, 1910,	1774	1404	1402	1303	1200	1148	1052	863	761	694	455	338	181	37
September, 1911,	1731	1543	1373	1347	1300	1076	1058	926	716	729	492	366	226	25
September, 1912,	1968	1397	1465	1311	1352	1189	1035	949	808	696	536	405	238	21
September, 1913,	2218	1677	1481	1423	1347	1345	1162	898	690	787	547	450	277	25
September, 1914,	2305	1789	1593	1451	1367	1350	1327	1046	899	932	631	457	316	39
September, 1915,	2137	1872	1661	1513	1364	1407	1179	1081	1037	930	774	529	348	32
September, 1916,	2233	1865	1809	1709	1477	1453	1211	976	926	936	723	582	356	64

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HIGH SCHOOL SYSTEM

The high schools are not managed as entirely separate and unrelated institutions. They are so conveniently grouped that interchange of students is easy and economical. Pupils choose courses, not schools. On promotion from the grammar school a pupil decides, with the advice and approval of his parents, what course among those offered in the high schools most fully meets his needs. He is then assigned for enrollment to that school in which his entire course, or the greater part of his course, is carried on. To secure certain portions of his work he may need to report for one or more periods each week at a recitation room, laboratory, or gymnasium in one of the other schools, but his assignment for enrollment in a school is decided on the basis of the predominant characteristics of the course which he chooses.

CENTRAL HIGH SCHOOL

First high school in Springfield; organized, 1841.

Central High School, organized, 1849.

Present building occupied, 1898.

Alumni Association organized, 1854.

Officers of the Alumni Association: Executive Committee: President, Frank Hodskins; vice-president, Mrs. George Pirnie; secretary, W. Meredith Wharfield; treasurer, Philip Beebe; Mrs. Edward H. Wilkinson, Miss Constance Fowler, Hon. Frank E. Stacy, Dwight Winter, Mrs. Kingman Brewster.

TECHNICAL HIGH SCHOOL

Manual training course opened to high school pupils, 1886.

Organized as Mechanics Arts High School, 1898.

Present name adopted, 1904.

Housed in present building and courses in household technology offered for girls, 1906.

Alumni Association organized, 1903.

Officers of the Alumni Association: President, Ray A. Burt; vice-president, Arthur Lantz; secretary and treasurer, Milton M. Smith; member-at-large, Victor Wesson.

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HIGH SCHOOL OF COMMERCE

Organized as a department in Central High School, 1898.

Transferred to Technical High School, 1906.

Organized as High School of Commerce and transferred to Central High School Building, with sessions in the afternoon, 1910.

New building occupied, September, 1915.

Alumni Association organized, February 23, 1917.

Officers of the Alumni Association: President, John W. Colton; first vice-president, John W. Wood; second vice-president, Miss Margaret F. Ganley; secretary-treasurer, Mrs. Bertha Bassett Broadhurst; executive committee, John W. Colton, Mrs. Agnes Pope Flannery, Miss Hazel Gibbins, Raymond B. Shattuck, Lloyd Galbraith, Miss Sara U. Freeman, and Principal Carlos B. Ellis.

TERMS OF ADMISSION TO ALL HIGH SCHOOLS.

Pupils are admitted to the high schools twice a year. All pupils of the grammar schools who are recommended by the principals of these schools are admitted without examination. All those not so recommended are granted the privilege of an examination for admission if they desire it.

Non-residents are admitted upon passing the required examination and paying a tuition of $100 per year in advance. A special pamphlet containing the courses of study and all other necessary information in regard to these schools is issued separately, and may be obtained by applying to the Superintendent of Schools.

EVENING SCHOOL OF TRADES

Organized, 1898.

Conducted in Technical High School building, beginning 1906.

TERMS OF ADMISSION.

Tuition in all the classes is free to all persons over fourteen years of age who are residents of Springfield, but a fee of $5 for materials and other incidental expenses is charged each member of the classes in machine shop practice, and in pattern-making; in plumbing this incidental fee is $8, and in the laboratory work in electricity it is $4. Non-residents are charged a tuition fee for the season of twenty-four weeks as follows: For mechanical drawing, for mathematics, and for electricity, $10; for all

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other classes, $15. Non-residents are also charged the incidental fees. Members are required to be regular in attendance. Persons wishing to join classes must give satisfactory references as to character and show evidence of ability to do the work required. Certificates of proficiency are awarded in each course to those who complete that course satisfactorily. The school opens the second week in October and is in operation 24 weeks, closing Thursday and Friday evenings of Thanksgiving week and during the vacation of the Christmas holiday season. The school hours are from 7.15 P.M. to 9.15 P.M.

Tuition in all the evening art classes and in the practical classes in domestic science, sewing, and home decoration is free to all persons over fourteen years of age who are residents of Springfield, but a fee of $2.50 for materials and other incidental expenses is charged each member of the classes in design and crafts and domestic science; in the classes in sewing and dressmaking this incidental fee is $2. No incidental fee is charged for the classes in free-hand and model drawing. In addition to these incidental fees non-residents are charged a tuition fee of $10 for the season of twenty-four weeks.

VOCATIONAL SCHOOL

Organized in Technical High School building, 1908.

In July, 1911, State approval was secured with reimbursement of one half the cost of maintenance and the school was transferred to rented quarters at 36 Taylor street.

Transferred to Pynchon Street School, April, 1914.

TERMS OF ADMISSION.

This school is designed for boys over fourteen years of age, enrolled in the upper grammar grades.

Tuition for non-residents at this school is $100 per year, payable in advance.

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LIST OF TEXT BOOKS

AUTHORIZED FOR USE IN THE PUBLIC SCHOOLS.

PRIMARY AND GRAMMAR SCHOOLS.

READING.

AUTHOR.	TITLE.	GRADE.
Blaisdell	Boy Blue and his Friends	II
Blaisdell, Etta A.	Child Life Reader, 1st to 3d	I-III
Bryce, Katherine	Child-Lore Reader	II
Burgess, T. W.	Old Mother West Wind	III
Carroll & Brooks	Fifth Reader	V
Cyr, Ellen M.	Primer	I
Edson-Laing	Edson-Laing Reader, Book I	I
Edson-Laing	Edson-Laing Reader, Book II	II
Free & Treadwell	The Primer	I
Holbrook, Florence	Hiawatha Primer	II
Howe, W. D.	Third Reader	III
Jones, L. H.	Jones' Third Reader	III
McMurry	William Tell (Dramatic)	VII
Noyes & Guild	Sunshine Primer	I
Pyle	Adventures of Robin Hood	VI
Osgood, Eulalie Grover	Folklore Primer	I
Osgood, Eulalie Grover	Sunbonnet Babies Primer	I
Powers & Balliet	Readers	I-IX
Rice & Ketchum	Our Story Reader	I
Shaw, Edward R.	Big People and Little People of Other Lands	III
Stevenson, Augusta	Children's Classics in Dramatic Form	IV
Thompson, J. G. & T. E.	For Childhood Days	I
Wiltse, Sara E.	Folklore Stories and Proverbs	II
GEOGRAPHICAL.		
Andrews, Jane	Seven Little Sisters	IV
Carpenter, Frank G.	Geographical Reader, Asia	V
Carpenter, Frank G.	Geographical Reader, North America	VI
Carpenter, Frank G.	Geographical Reader, Europe	VII
Carroll, Stella W.	Around the World, Bk. 1	II
Carroll, Stella W.	Around the World, Bk. 2	III
Carroll, Stella W.	Around the World, Bk. 3	IV
Grenfell, Wilfred T.	Adrift on an Ice Pan	VII
Humphrey, F. A.	Little Folks of Other Lands	II
Kirby, Mary & Elizabeth	Aunt Martha's Corner Cupboard	IV
Muir, John	Stickeen	V
Schwatka, Frederick	Children of the Cold	V
HISTORICAL.		
Eggleston, Edward	Stories of Great Americans	IV
Ellson & Macmullan	Story of Our Country	IV
Hawthorne, N.	Grandfather's Chair	VII

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AUTHOR.	TITLE.	GRADE.
Pratt, Mara L.	Legends of the Red Children	VI
Smythe, E. Louise	Old Time Stories	II
Tanner, Dorothy	Legends from the Red Man's Forest	V
ELEMENTARY SCIENCE.		
Cooke, Flora J.	Nature Myths	III
Long, William J.	Ways of Wood Folk	V
GENERAL LITERATURE.		
Æsop	Fables (Stickney)	IV
Andersen, Hans	Fairy Tales, I & II	V
Baldwin, James	Fairy Stories and Fables	III
Baldwin, James	Old Greek Stories	IV
Beckwith, M. Helen	In Mythland, Vol. I	II
Bellamy, Charles J.	Wonder Children	IV
Carroll, Lewis	Alice's Adventures in Wonderland	V
Cook, Agnes S.	Story of Ulysses	V
Cooper, J. Fenimore	The Spy	VII
Defoe, Daniel	Robinson Crusoe (Lambert)	VI
Dickens, Charles	Christmas Carol, etc.	VIII
Dickens, Charles	Little Nell	VII
Dickens, Charles	Tale of Two Cities	IX
Francillon, R. E.	Gods and Heroes	VIII
Hawthorne, N.	Tanglewood Tales	VII
Hawthorne, N.	Wonder Book	VI
Homer	Odyssey (Palmer)	IX
Kingsley, Charles	Water Babies	V
Longfellow, H. W.	Hiawatha	VI
Longfellow, H. W.	Selections	VIII
Martineau, Harriet	Peasant and Prince	IX
Norton, C. Eliot	Heart of Oak, I	I
Scott, Walter	Ivanhoe	IX
Scott, Walter	Kenilworth	IX
Scott, Walter	Lady of the Lake (Rolfe)	IX
Scott, Walter	Marmion (Rolfe)	IX
Scott, Walter	The Talisman (Holbrook)	IX
Shakespeare, W.	Julius Cæsar (Hudson)	IX
Stockton, Frank R.	Fanciful Tales	V
Wyss, J. D. & J. R.	Swiss Family Robinson (Stickney)	VI
	LANGUAGE.	
Chancellor	Graded City Speller, Fifth Year	V
Chancellor	Graded City Speller, Sixth Year	VI
Emerson & Bender	English Spoken and Written, Book II	VIII
Sykes, Frederick H.	English Composition for Grammar Grades	IX
Wilson & Winship	The Merrill Speller, Book II	VII-IX
	ARITHMETIC.	
Emery, M. S.	Everyday Business	VIII
Hoyt & Peet	Everyday Arithmetic, Book I	III, IV
Hoyt & Peet	Everyday Arithmetic, Book II	V, VI

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AUTHOR.	TITLE.	GRADE.
Hoyt & Peet	Everyday Arithmetic, Book III	VII, VIII
Nichols, W. F.	New Graded Lessons in Arith.	II-VII
Spencer, W. G.	Inventional Geometry	IX
Van Tuyl, George H.	Essentials of Business Arithmetic	IX
Wells & Hart	First Year Algebra	IX
	GEOGRAPHY.	
Frye, Alexis E.	Leading Facts of Geography, Bk. II.	VIII
Morton, Eliza H.	Advanced Geography	VI, VII
Morton, Eliza H.	Elementary Geography	V
King, Charles F.	Advanced Geography	IX
Tarr and McMurry	Geography, Second Book, Part I	VI
	HISTORY.	
Fiske, John	War of Independence	IX
Gibson, J. W.	Chart History of the Civil War	VIII
Gordy, Wilbur F.	Complete History of the United States	VII, VIII
Gordy, Wilbur F.	American Leaders and Heroes	V
Gordy, Wilbur F.	American Beginnings in Europe	VI
Montgomery, D. H.	Leading Facts of French History	IX
Scudder, Horace E.	George Washington	VII
Tappan, Eva March	England's Story	IX
	PHYSIOLOGY.	
Blaisdell, Albert F.	Child's Book of Health	IV
Blaisdell, Albert F.	How to Keep Well	VII
Steele, J. D.	Hygiene for Young People	IV
	BOOKKEEPING.	
Meservey, A. B.	Bookkeeping	VIII
	MUSIC	
Giddings & Newton	Junior Song and Chorus Book	IV-IX
Zuchtman, F.	New American Music Reader, Book II	III, IV
Zuchtman, F.	New American Music Reader, Book III	V, VI
Zuchtman, F.	New American Music Reader, Book IV	VII-IX
	PENMANSHIP.	
Houston, Harry	Writing Lessons	I-IV
	DICTIONARY.	
Webster, Noah	Shorter School Dictionary	IV-IX

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MANUAL TRAINING.

AUTHOR.	TITLE.	GRADE.
Murray, M. W.	Problems in Wood Working	

GERMAN.

Fich	Dies und Das	VIII, IX
Muller & Wenckebach	Gluck Auf	VIII, IX
Walter & Krause	Beginners' German	VIII, IX

FRENCH.

Chapuzet & Daniels	Mes Premiers Pas en Français	VIII, IX

HIGH SCHOOLS.

CLASSICS.

Text-Books:

AUTHOR.	TITLE.
Allen & Greenough	Cæsar
Allen & Greenough	Latin Grammar
Arrowsmith & Knapp	Viri Romæ
Autenreith	Homeric Dictionary
Barss	Cornelius Nepos
Burgess & Bonner	Elementary Greek
Collar & Daniell	Practical Latin Composition
Collar & Daniell	First Year Latin
Collar & Daniell	New Gradatim
D'Ooge	Latin Composition
D'Ooge	Cicero
Fairclough & Brown	Æneid
Gleason	Xenophon's Cyropædia
Gleason	Greek Prose Composition
Greenough & Daniell	Sallust's Catiline
Greenough & Kittredge	Vergil
Hadley & Allen	Greek Grammar
Harper	Latin Dictionary
Keep	Homer's Iliad (Books I-VI)
Kelsey	Cæsar, Gallic Wars
Kelsey	Cicero
Kelsey	Ovid
Kelsey	Xenophon's Anabasis
Kirtland	Fabulæ Faciles
Liddell & Scott	Abridged Greek Dictionary
Merry	Homer's Odyssey (Books I-XII)
Pearson	Essentials of Latin
Perrin	Homer's Odyssey (Books I-IV)
Potter	A New Method for Cæsar
Ritchie	Fabulæ Faciles
Rolfe	Xenophon's Anabasis (Book V)
Shuckburgh	Cicero de Senectute (Cato Major)

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AUTHOR.	TITLE.
Smith	Latin Lessons
White	First Greek Book
Woodruff	Greek Prose Composition
Supplementary Books:	
Allen & Greenough	Cicero
Barss	Third Year Latin for Sight Reading
Butler	Herodotus (Book VII)
Collar	Gate to Cæsar
Conington	Vergil
Greenough	Vergil's Æneid (Books VII-XII)
Jeram	Angelice Reddenda
Moss	First Greek Reader
Page	Bucolics of Vergil
Page	Fifty Letters of Cicero
Pearson	Greek Prose Composition
Pearson	Latin Prose Composition
Towle and Jenks	Cæsar for Sight Reading

ENGLISH.

Text-Books:	
Addison	Sir Roger de Coverley Papers
Alshouse and Root	A Brief English Grammar
Ashmun	Modern Prose and Poetry for Secondary Schools
Benton	Lincoln and Douglas Debate
Brooks	English Composition, Book I, Enlarged
Brooks & Hubbard	Composition Rhetoric
Browning	Shorter Poems
Buehler	Exercises in English
Bunyan	Pilgrim's Progress
Burke	Speech on Conciliation with America
Byron	Shorter Poems
Canby & Opdycke	Elements of Composition
Carlyle	Essay on Burns
Chew	Practical High School Speller
Coleridge	Ancient Mariner
Cooper	The Last of the Mohicans
De Quincey	English Mail Coach
Dickinson & Roe	Nineteenth Century English Prose
Eliot	Silas Marner
Emerson	Culture, Books, Power
Foster	Essentials of Exposition and Argument
Fuess	Selected English Letters
Genung	Outlines of Rhetoric
Genung & Hanson	Outlines of Composition and Rhetoric
Goldsmith	Vicar of Wakefield
Grenfell	Adrift on an Ice Pan
Halleck	History of American Literature
Hitchcock	Enlarged Practice Book in English Composition
Hitchcock	New Practice Book
Hitchcock	Rhetoric and the Study of Literature

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AUTHOR.	TITLE.
Hughes	Tom Brown's School Days
Kittredge & Arnold	Manual of Composition
Lockwood	The Freshman and his College
Long	American Poems
Long	English Literature
Lowell	Vision of Sir Launfal
Macaulay	Lays of Ancient Rome
Macaulay	Essays on Milton and Addison
Macmillan Co.	An Outline for the Study of American Civil Government
Milton	Lyrics
Milton	Paradise Lost
Pace	Readings in American Literature
Palmer	Self-Cultivation in English
Pancoast	Introduction to American Literature
Pancoast	Introduction to English Literature
Pope	Iliad
Pope	Rape of the Lock
Sandwick & Bacon	Word Book
Scott	Ivanhoe
Scott	Marmion
Scott & Denney	Composition-Rhetoric
Scott & Denney	Elementary English Composition
Simonds	Student's History of English Literature
Tennyson	Idylls of the King
Tennyson	The Princess
Thurber	Select Essays of Macaulay
Webster	Bunker Hill Oration
Webster	English for Business
Williams	Choice Literature, Book VII
Winchester	Book of English Essays
Woolley	Handbook for Composition
Wordsworth	Shorter Poems

Supplementary Books:

Aldrich	Story of a Bad Boy
Arnold	Sohrab and Rustum
Bacon	Essays
Bigelow	Handbook of Punctuation
Blackmore	Lorna Doone
Browning	Cavalier Tunes
Browning	Lady Geraldine, Selected Poems
Bryant	Selections
Bryant	Iliad
Bryant	Odyssey
Bryce	Selected Essays
Buehler	A Modern English Grammar
Byron	Childe Harold
Carlyle	Heroes and Hero Worship
Chaucer	Prologue to Canterbury Tales
De Quincey	De Quincey's Confessions
De Quincey	Joan of Arc
Dickens	A Tale of Two Cities
Eliot	Education for Efficiency

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AUTHOR.	TITLE.
Emerson	American Scholar
Emerson	Fortunes of the Republic
Ewing	Jackanapes
Fernald	English Synonyms, etc.
Franklin	Antigone of Sophocles
Franklin	Autobiography
Gardiner, Kittredge & Arnold	Composition and Rhetoric
Gaskell	Cranford
Gayley	Classic Myths
Gayley & Flaherty	Poetry of the People
Genung	Rhetorical Analysis
George	From Chaucer to Arnold
Goldsmith	She Stoops to Conquer
Goldsmith	Deserted Village
Guerber	Myths of Greece and Rome
Green	Short History of the English People
Hale	Man Without a Country
Harte	Selected Short Stories
Hawthorne	Twice Told Tales
Hawthorne	Tales of the White Hills
Hawthorne	House of Seven Gables
Holmes	Selections from Breakfast Table Series
Hotchkiss & Drew	Business English
Houghton Mifflin Co.	Masterpieces of British Literature
Houghton Mifflin Co.	Children's Hour
Howell	Silas Lapham
Irving	Life of Oliver Goldsmith
Irving	Alhambra
Irving	Selections from Sketch Book
Irving	Tales of a Traveler
Jewett	Night before Thanksgiving
Kipling	The Jungle Book
Lamb	Essays from Elia
Lewis	First Book in English
Lockwood	Lessons in English
Lockwood & Emerson	Composition and Rhetoric
Long	History of English Literature
Longfellow	Hiawatha
Longfellow	Tales of a Wayside Inn
Macaulay	Earl of Chatham
Macaulay	Essay on Clive
Macaulay	Essay on Warren Hastings
Macaulay	Essays on Addison and Johnson
Macaulay	Masterpieces of British Literature
Macaulay	On Life of Samuel Johnson
Mallory	King Arthur Stories
Merrill, C. E., Co.	Selected Short Stories
O'Neill	Punctuation
Palgrave	Golden Treasury
Palmer	Translation of the Odyssey of Homer
Parkman	Champlain and his Associates
Poe	Poems and Tales
Poe	The Raven
Pope	The Iliad

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AUTHOR.	TITLE.
Pope	Essay on Man
Potter	Alcestes of Euripides
Ruskin	Sesame and Lilies
Schurz	Abraham Lincoln
Scott	Lady of the Lake
Scott	Quentin Durward
Scott	Woodstock
Scott, Foresman & Co.	Types of the Short Story
Shakespeare	A Midsummer Night's Dream (Rolfe)
Shakespeare	As You Like It (Longmann)
Shakespeare	Hamlet (Rolfe)
Shakespeare	Julius Cæsar (Rolfe)
Shakespeare	King John (Rolfe)
Shakespeare	King Henry IV (Part I) (Rolfe)
Shakespeare	King Henry IV (Part II) (Rolfe)
Shakespeare	King Henry V (Rolfe)
Shakespeare	King Lear (Rolfe)
Shakespeare	King Richard II (Rolfe)
Shakespeare	King Richard III (Rolfe)
Shakespeare	Macbeth (Rolfe)
Shakespeare	Merchant of Venice (Rolfe)
Shakespeare	Othello (Rolfe)
Shakespeare	Romeo and Juliet
Shakespeare	Tempest (Rolfe)
Shakespeare	Twelfth Night (Rolfe)
Shaw	History of English Literature
Shelley & Keats	Selections
Sheridan	Rivals
Sherman	Short Stories
Simond	American Literature (Student's History of)
Socrates	Translation
Stedman	American Anthology
Stevenson	Travels with a Donkey and Inland Voyage
Stevenson	Treasure Island
Tappan	Topical Notes on American Authors
Taylor	Lars
Tennyson	Shorter Poems
Thackeray	The Newcomes
Warner	In the Wilderness
Washington	Farewell Address
Webster	Secondary Dictionary
Whittier	Snowbound, Among the Hills, Songs of Labor
	Poetry of the People
	King Arthur Stories
	Robin Hood (Pyle Edition)
	Arabian Nights
	Don Quixote

FRENCH.

Text-Books:

About	Le Roi des Montagnes
Bacon	New French Course

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AUTHOR.	TITLE.
Bacon	Une Semaine à Paris
Bazin	Contes Choisis
Bazin	Le Blé qui Lève
Bierman & Frank	Conversational French
Bowen, ed.	Modern French Lyrics
Bruce	Dictées Françaises
Bruce	Grammaire Française
Bruno	Le Tour de la France
Cameron	French Prose Composition
Chardenal	Complete French Course
Comfort	French Composition
Constanseau	French Dictionary
Corneille	Le Cid
Daudet	La Belle Nivernaise
Desnoyers	Les Mésaventures de Jean-Paul Choppart
Dike	Scientific French Reader
Dumas	La Tulipe Noire
Dumas	Monte Cristo
Enault	Le Chien du Capitaine
Feuillet	Le Roman d'un Jeune Homme Pauvre
Foa	Le Petit Robinson de Paris
François	Advanced French Composition
François	Beginner's French
François	Introductory French Prose Composition
François & Giroud	Simple French
Fraser & Squair	Shorter French Course
Goodell	L'Enfant Espion
Grandgent	Prose Composition, Part I, based on L'Abbe Constantin
Grandgent	Prose Composition, Part IV, based on La Dernière Classe
Grandgent	Prose Composition, Part V, based on La Pipe de Jean Bart
Guerber	Contes et Legendes
Guerber	Prisoners of the Temple
Halevy	L'Abbé Constantin
Heath	French-English and English-French Dictionary
Hennequin	Lessons in Idiomatic French
Hugo	Les Misérables
Hugo	Quatre-vingt-treize
Josselyn & Talbot	Elementary Reader of French History
Kimball	Materials for French Composition based on Colomba
La Bedollière	La Mère Michel et Son Chat
Labiche & Martin	Le Voyage de M. Perrichon
La Fontaine	Fables
Lamartine	Jeanne d'Arc
Larousse	Dictionnaire
Larousse	Grammaire Complète
Lemaitre	Contes Estraits de Myrrha
Loti	Pêcheur d'Islande
Mairet	La Tâche du Petit Pierre
Malot	Sans Famille

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AUTHOR.	TITLE.
Marique & Gilson	French Sight Reading
Mérimée	Colomba
Molière	L'Avare
Molière	Le Bourgeois Gentilhomme
de Musset	L'Histoire d'un Merle Blanc
Panet	French Syntax and Composition
Patton	Causeries en France
Rogers	French Sight Reading
Sand	La Mare au Diable
Sandeau	Mlle. de la Seiglière
Sandeau	Sacs et Parchemins
Sarcey	Le Siége de Paris
Snow & Lebon	Easy French
Souvestre	Un Philosophe sous les Toits.
Spiers & Lurenne	French Dictionary
Super	French Reader
Theuriet	L'Abbé Daniel
Tuckerman	Simplicité
Verne	Tour du Monde en Quatre-vingts Jours
Worman	Grammaire Française

Supplementary Books:

Ballard	Short Stories for Oral French
Balzac	Le Curé de Tours
Beaumarchais	Le Barbier de Séville
Bercy	Le Français Pratique
Bruce	French Selections for Sight Translation
Coppée	Le Luthier de Crémone et Le Trésor
Daudet	Le Petit Chose
Dumas	Les Trois Mousquetaires
Duval	Petite Histoire de la Litterature Française
Erckmann-Chatrian	Le Conscrit de 1813
Fortier	Histoire de France
Fortier	Sept Grands Auteurs
Foncin	Le Pays de France
Hugo	La Chute
Kuhn	French Readings for Beginners
Labiche & Martin	La Poudre aux Yeux
Lavisse	La Deuxième Année d'Histoire de France
Legouvé & Labiche	La Cigale chez les Fourmis
Mairet	L'Enfant de la Lune
Mariette	Half Hours of French Translation
de Musset	Trois Comédies
de Ruy, Rachel	Rondes Enfantines
Sand	La Famille de Germandre
Super	Anecdotes Faciles
Syms	Easy French Reader
Syms	Selected Letters of Madame de Sévigné
Syms	Le Chien de Brisquet
Talbot	Le Francais et Sa Patrie
Topffer	La Bibliotheque de Mon Oncle
Zola	La Débâcle

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GERMAN.

Text-Books:

AUTHOR.	TITLE.
Arnold	Ein Regentag auf dem Lande
Arnold	Fritz auf Ferien
Bacon	German Composition
Bacon	German Grammar for Beginners
Bagster-Collins	First Year in German
Brandt	German Reader
Chamisso	Peter Schlemihl
Chiles	German Prose Composition
Collar	Shorter Eysenbach
Dippold	Scientific German Reader
Erk	Liederschatz
Freytag	Aus dem Staat Freidrichs des Grossen
Freytag	Karl der Grosse
Fulda	Der Talisman
Goethe	Dichtung und Wahrheit
Goethe	Hermann und Dorothea
Greenfield	Brief Summary of German Grammar
Guerber	Märchen und Erzählungen
Hatfield	Materials for German Composition, based on Höher als die Kirche
Heath	German Dictionary
Heine	Die Harzreise
Heyse	Er Soll Dein Herr Sein
Heyse	L'Arrabbiata
Holzwarth	Grüss aus Deutschland
Huss	German Reader
Jagemann	German Prose Composition
Jagemann	German Syntax
Joynes & Wesselhoeft	German Lesson Grammar
Kayser & Monteser	A Brief German Course
Kayser & Monteser	Foundations of German
Kayser & Monteser	German Grammar
Keller	Kleider machen Leute
Klenze	Deutsche Geschichte
Kohlrausch	Das Jahr 1813
Leander	Traumereien
Lessing	Minna von Barnhelm
Moltke	Die Beiden Freunde
Mondan	German Selections for Sight Translations
Muller & Wenckebach	Glück Auf
Munchausen	Reisen
Pope	German Composition
Riehl	Der Fluch der Schonheit
Schiller	Das Lied der Glocke
Schiller	Der Neffe als Onkel
Schiller	Thirty Years' War (Book III)
Schiller	Wilhelm Tell
Stolze	Bunte Geschichten
Seidel	Die Monate
Seidel	Leberecht Hühnchen
Spanhoofd	Deutsche Grammatik
Stifter	Das Heidedorf

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AUTHOR.	TITLE.
Storm	Geschichten aus der Tonne
Storm	Immensee
Stroebe und Whitney	Geschichte der Deutschen Literatur
Thomas	German Grammar
Tuckerman	Am Anfang
Von Hillern	Höher als die Kirche
Vos	Essentials of German
Vos	Materials for German Conversation
Wenckebach, ed.	Die Schönsten Deutschen Lieder
Whitney & Stroebe	Easy German Composition
Wildenbruch	Das Edle Blut
Supplementary Books:	
Auerbach	Brigitta
Bacon	Im Vaterland
Baumbach	Das Habichtsfräulein
Baumbach	Der Schweigersohn
Baumbach	Im Zwielicht
Benedix	Nein
Bernhardt	Novelletten Bibliothek
Bernhardt	Stille Wasser
Bierwirth	Words of Frequent Occurrence
Ebner-Eschenbach	Krambambuli
Ernst	Flachsmann als Erzieher
Freytag	Aus dem Jahrhundert des Grossen Krieges
Frommel	Eingeschneit
Gerstacker	Germelshausen
Gore	German Science Reader
Groller	Inkognito
Heyse	Anfang und Ende
Heyse	Das Mädchen von Treppi
Keller	Bilder aus der Deutschen Literatur
Lessing	Nathan der Weise
Meissner	Aus Meiner Welt
Moser	Der Bibliotekar
Moser	Willkommen in Deutschland
Riehl	Burg Neideck
Spyri	Rosenresli (ed. Boll)
Sudermann	Teja
Zschokke	Der zerbrochene Krug
	SPANISH.
Coester	A Spanish Grammar
Crawford	Spanish Composition
Des Garennes	Introduction a la Lengua Castellana
Harrison	Spanish Commercial Reader
Hills	Spanish Tales for Beginners
Roessler & Remy	First Spanish Reader
	HISTORY.
Text-Books:	
Andrews	A History of England
Ashley	American Government

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AUTHOR.	TITLE.
Botsford	A History of Greece
Botsford	A History of Rome
Botsford	History of Ancient World
Bryce	American Commonwealth
Channing	Student's History of the United States
Cheyney	History of England
Emerton	Introduction to the Middle Ages
Fiske	Civil Government in the United States
Forman	Advanced Civics
Forman	Advanced American History
Guitteau	Government and Politics in the U. S.
James & Sanford	Government in State and Nation
Mackenzie	The Nineteenth Century
McLaughlin	American Nation
Montgomery	Leading Facts in English History
Moore	Industrial History of the American People
Morey	Outlines of Roman History
Muzzey	American History
Myers	Ancient History
Myers	General History
Myers	Greece
Myers	Mediæval and Modern History
Myers	Middle Ages
Myers	Modern Age
Myers	Rome; Its Rise and Fall
Nida	State and Nation
Oman	A History of Greece
Robinson & Beard	Development of Modern Europe
Robinson & Beard	Outlines of European History, Part II
Robinson & Breasted	Outlines of European History, Part I
Smith	Commerce and Industry
Walker	Political Economy
Webster	Ancient History
West	Modern History
Westerman	Story of the Ancient Nations
Woodburn & Moran	American History and Government
Wrong	History of the British Nation

Supplementary Books:

Adams	European History
Barnes	General History
Barrows	History of Springfield
Botsford	Ancient History for Beginners
Church	Greek Life and Story
Church	Stories from Herodotus
Church	Stories of the Persian Wars
Cranch	Vergil's Eneid
Davis	Readings in Ancient History, Vols. I and II
Dawes	How We are Governed
Fisher	Outlines of Universal History
Fiske	History of the United States
Goodspeed	History of the Ancient World
Hart	Source Book of American History
Johnston	History of the United States

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AUTHOR.	TITLE.
Larned	History of England
Monro	Middle Ages
Montgomery	Leading Facts of French History
Sheldon	General History
Webster	History of Commerce
Wilson	The State
Witt	Retreat of the Ten Thousand
Wright	Industrial Evolution of the United States
	Municipal Register of Springfield

MATHEMATICS.

Text-Books:

Atwood	Exercises in Algebra
Collins	Practical Algebra, First Year Course
Hawkes	Advanced Algebra
Jameson	Elementary Practical Mechanics
McCurdy	Exercise Book in Algebra
Merriman	Strength of Materials
Phillips & Strong	Elements of Trigonometry
Phillips & Strong	Trigonometry with Tables
Robbins and Somerville	Exercises in Algebra
Schultz	Elementary Algebra
Schultze & Sevenoak	Plane Geometry
Stone & Millis	Elementary Algebra
Wells	New Higher Algebra
Wells	Plane Trigonometry with Tables
Wells & Hart	First Year Algebra
Wentworth	Elements of Algebra
Wentworth	Plane and Solid Geometry

Supplementary Books:

Bailey & Woods	Analytic Geometry
Crawley	Table of Logarithms
Fine	College Algebra
Holton	Shop Mathematics
Longmans	School Mensuration
Sheperd	Problems in Strength of Materials
Wells	Algebra for Secondary Schools
Wells	College Algebra
Wells	Plane and Solid Geometry
Wells	New Plane and Spherical Trigonometry
Wells	Logarithmic Tables
Wentworth	College Algebra
Wentworth	Plane Trigonometry

SCIENCE.

Text-Books:

Allyn	Elementary Applied Chemistry
Bergen & Davis	Laboratory and Field Manual of Botany
Brownlee	First Principles of Chemistry
Butler	Household Physics

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AUTHOR.	TITLE.
Carhart & Chute	High School Physics
Colton	Briefer Course in Physiology
Comstock	Astronomy
Dryer	Physical Geography
Elhuff	General Science, First Course
Fairbanks	Physiography
Hessler	First Year Science
Hessler & Smith	Essentials of Chemistry
Hough & Sedgwick	Elements of Hygiene and Sanitation
Irish	Qualitative Analysis
Jackson	An Elementary Book on Electricity and Magnetism
Kinne & Cooley	Foods and Household Management
Kinne & Cooley	Shelter and Clothing
Miller	Progressive Problems in Physics
Morgan and Lyman	Chemistry
Newell	Descriptive Chemistry
Newell	Experimental Chemistry
Norton	Food and Dietetics
Osterhout	Experiments with Plants
Peabody	Studies in Physiology
Remsen	Elements of Chemistry
Remsen	Briefer Course
Smith	Elementary Chemistry
Smith	General Chemistry for Colleges
Tarr	New Physical Geography

Supplementary Books:

Bailey	Sanitary and Applied Chemistry
Chittenden	Nutrition of Man
Coit	Chemical Arithmetic
Colton	Practical Zoology
Conn	Bacteria, Yeasts, and Molds in the Home
Cotton	Care of Children
Coulter	Plant Relations
Coulter	Plant Structures
Dobbin & Walker	Chemical Theory for Beginners
Eddy	Text Book in General Physiology
Farmer	Boston Cooking School Cook Book
Gray	Botany
Hortvet	Elementary Practical Physics
Howell	Text-Book of Physiology
Johnston	Chemistry of Common Life
Lusk	Science of Nutrition
Martin	The Human Body
Noyes	Qualitative Chemical Analysis
Olsen	Pure Foods
Orton	Comparative Zoology
Perkin & Lean	Introduction to Study of Chemistry
Richards	Chemistry of Cooking and Cleaning
Rose	Laboratory Manual of Dietetics
Seller	Qualitative Chemical Analysis
Sherman	Chemistry of Food and Nutrition
Terrill	Household Management

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AUTHOR.	TITLE.
Thompson	A Nature Calendar
Walters	Physiology and Hygiene
Williams	Elements of Chemistry

ART.

Hamlin	History of Architecture
Van Dyke	History of Painting

MECHANICAL DRAWING.

Text-Books:

Atkinson, Mentzer, and Grover	Mechanical Drawing for High Schools, Part I
Hoffman	Elementary Machine Design
Mathewson	Notes for Mechanical Drawing

MUSIC.

Birchard	School Song Book
Birchard	Standard Songs No. 7
Dann	School Hymnal
McConathy	The School Song Book
Tomlins	The Laurel Song Book
Tupper	First Year Harmony
Tupper	Student's Hymnary

COMMERCIAL.

Text-Books:

Adams	Commercial Geography
Belding	Commercial Correspondence
Bennett	Bookkeeping and Accounting Exercises, Part I
Bennett	Bookkeeping and Accounting Exercises, Part II
Bullock	Introduction to Study of Economics
Coman	Industrial History of United States
Eldridge	Shorthand Dictation Exercises
Ellis	Practical Bookkeeping
Fritze-Eldridge	Expert Typewriting
Gano	Commercial Law
Gilbert & Brigham	Introduction to Physical Geography
Pitman	Course in Isaac Pitman Shorthand
Pitman	Progressive Dictator
Pitman	Selections from American Authors
Poates	Complete Atlas of the World
Redway	Commercial Geography
Van Tuyl	Complete Business Arithmetic
Van Tuyl	Essentials of Business Arithmetic
Webster	General History of Commerce

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AUTHOR.	TITLE.
Williams & Rogers	Bookkeeping and Business Practice
Zaner & Bloser	Arm Movement Writing Manual No. 144
Supplementary Books:	
Green	History of Springfield
Smith	Proof Reading and Punctuation
Thurston	Economics and Industrial History
Webster	Little Gem Dictionary

EVENING HIGH SCHOOL.

MATHEMATICS.

Ellis	Practical Bookkeeping
Moore	New Commercial Arithmetic
Nichols	Arithmetical Problems
Nichols	Graded Lessons in Arithmetic, Book IV
Schultz	Elements of Algebra
Wells	Higher Algebra
Wentworth	Grammar School Arithmetic
Wentworth	New Plane and Solid Geometry

SCIENCE.

Carhart & Chute	First Principles of Physics
Carhart & Chute	High School Physics
Irish	Qualitative Analysis for Secondary Schools
Remsen	Chemistry
Remsen	Laboratory Manual
Williams	Essentials of Chemistry

GERMAN.

Bagster-Collins	First Book in German

FRENCH.

Bacon	Une Semaine à Paris
Ballard	Short Stories for Oral French
Comfort	French Prose Composition
François	Introductory French Prose Composition
Grandgent	French Composition
Guerber	Contes et Légendes
Halévy	L'Abbé Constantin
Mérimé	Colomba
Syms	Easy French Reader
Talbot	Le Français et sa Patrie
Tuckerman	French Pronunciation
Wright	Sylvestre Bonnard

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SPANISH.

AUTHOR.	TITLE.
Isaacs	Maria
Legundo	El Lector Americano
Norman	First Year Spanish

ENGLISH.

Chancellor	Standard Short Course
Dickens	Tale of Two Cities
Dickens	Little Nell
Eliot	Silas Marner
Francillon	Gods and Heroes
Guerber	Story of the Greeks
Goldsmith	The Deserted Village
Goldsmith	Plays of Oliver Goldsmith
Hawthorne	Grandfather's Chair
Hawthorne	White Hills of New England
Heydrich	One Year Course in English and American Literature
Holmes	From the Breakfast Table Series
Holmes	Grandmother's Story
Irving	Sketch Book
Lockwood & Emerson	Composition and Rhetoric
Longfellow	Evangeline, etc.
Longfellow	Tales of a Wayside Inn
Lowell	Vision of Sir Launfal
Pancoast	Introduction to American Literature
Poe	Poems and Tales
Rice	Rational Spelling Book, Part II
Ryan & Prior	How to Learn English
Scott	Ivanhoe
Shakespeare	Macbeth
Shakespeare	Merchant of Venice
Stevenson	Treasure Island
Sykes	English Composition for Grammar Schools
Tennyson	The Princess
Wallach	Secondary Book in English for Foreigners
Webster	Shorter School Dictionary
Whittier	Snowbound, Tent on the Beach, and Favorite Poems
Williams	Choice Literature
Wood	Practical Grammar and Composition

HISTORY.

Gordy	Complete History of the United States

GEOGRAPHY.

Carpenter	Geographical Reader—North America
Morton	Advanced Geography

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COMMERCIAL LAW.

AUTHOR.	TITLE.
Gano	Commercial Law
Guitteau	Government and Politics in the United States

STENOGRAPHY.

Pitman	Course in Shorthand
Pitman	Progressive Dictator

ELEMENTARY EVENING SCHOOLS.

Any day school book may be used and, in addition, the following:

Alexander	Spelling Book
Barnes	United States History
Bryce	Folk-lore from Foreign Lands
Chancellor	Standard Short Course for Evening Schools
Dole	The American Citizen
Dole	The Young Citizen
Field and Coveney	English for New Americans
Guyott	Physical Geography
Mintz	New American Citizen
O'Brien	English for Foreigners
Potter	Geography
Rice	Speller, Book I
Ryan & Prior	How to Learn English
White	Intermediate Arithmetic
Wood	Practical Grammar and Composition

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LOCATION OF PUBLIC SCHOOLS

WITH THE AREA OF THEIR LOTS AND THE TERRITORIAL BOUNDARIES OF THE DISTRICTS.

CENTRAL HIGH SCHOOL.—On the south side of State street, between School and Maple streets. Area of lot, 79,874 square feet.

District: The whole city.

HIGH SCHOOL OF COMMERCE.—State Street, opposite U. S. Armory. Area of lot, 129,480 square feet.

District: The whole city.

TECHNICAL HIGH SCHOOL.—On the east side of Elliott street. Area of lot, 66,785 square feet.

District: The whole city.

VOCATIONAL SCHOOL.—62 Pynchon street. Area of lot, 14,013 square feet.

District: The whole city.

OPEN-AIR SCHOOL.—On the west side of Chestnut street, between Harriet and Cumberland streets.

District: The whole city.

ACUSHNET AVENUE PRIMARY AND GRAMMAR SCHOOL.—On the east side of Main street, corner of Acushnet avenue. Area of lot, 33,680 square feet.

For primary grades, this district is bounded on the north by Whitney avenue, Fremont and Central streets (not including these streets); on the east by the Central street district; on the south by Mill river.

For grades IV. and V., the northern boundary of this district is Fremont and Central streets (including them); on the east and south the same as for primary grades. South street is also included in this district.

ALDEN STREET PRIMARY SCHOOL.—Alden street, near the junction of Walnut and Hancock streets. Area of lot, 19,765 square feet.

This district extends from the junction of Hancock and Central streets along Hancock to Florence street; along Florence (not including it) to

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Pine; Pine to Cedar; along Cedar, James, and King streets to Nelson street; along Nelson and Greene streets (not including these two streets) to Eastern avenue; along Eastern avenue (not including it) to Manhattan street; along Manhattan street (not including it) to Walnut street; along Walnut to Hickory, and along Hickory to the junction of Hancock and Central streets.

Pupils living on Alden street east of Nos. 78 and 85 attend the Eastern avenue school.

ARMORY STREET PRIMARY AND GRAMMAR SCHOOL.—On the west side of Armory street a short distance north of its junction with Liberty street. Area of lot, 56,700 square feet.

This district is bounded on the south by the Boston and Albany railroad, on the west by Cass street (including it from Linden to Liberty street). No northern and eastern boundaries are fixed.

BARROWS GRAMMAR SCHOOL.—On the southeast corner of Oak and Tyler streets, near the junction of Oak and Walnut streets. Area of lot, 37,498 square feet.

This district extends from the Boston and Albany railroad southerly along Federal and Walnut streets to Pine; along Pine street to Ashley; Ashley (not including it) to Hancock; along Alden street (not including it) to the New England railroad; along the New England railroad to Tyler street, and along Tyler to Hancock; along Hancock to State; through the middle of State street to Magazine street; along Magazine and Armory streets to the Boston and Albany railroad (including Armory street court).

The section bounded by Hickory street, Watershops pond, King street, and the New England railroad is also included in this district.

The children of grades I. to V., residing in that part of the Barrows district which is included in the Eastern Avenue district, will attend the Eastern avenue school.

The children of grades I. to IV., residing in that part of the Barrows district which is included in the Alden street, Strickland, and East Union street districts, will attend the Alden street, Strickland, and East Union street schools.

BOSTON ROAD PRIMARY AND GRAMMAR SCHOOL.—On the north side of Boston road, a little east of Jasper street, about three and one-half miles from Court Square. Area of lot, 22,500 square feet.

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BRIGHTWOOD PRIMARY AND GRAMMAR SCHOOL.—At Brightwood, northeast corner of Plainfield street and Talcott avenue. Area of lot, 32,355 square feet.

This district includes the section known as Brightwood. The eastern boundary is the Boston and Maine railroad. The southern boundary is Lowell and Plainfield streets to the railroad, including Lowell street.

BUCKINGHAM GRAMMAR SCHOOL.—On the southeast corner of Eastern avenue and Wilbraham road near Winchester Park. Area of lot, 94,570 square feet.

Pupils of grades V. to IX., living in the Homer street district, and pupils of grades VII. to IX. living in the Tapley and Dry Bridge districts, attend Buckingham school.

NOTE.—Pupils in the Tapley district living west of Harvard street and north of St. James avenue may attend the State street school at the option of their parents.

Children of the Barrows district living north of King street (including it) and east of Oak and Walnut streets (not including them) attend the Buckingham school in grades VIII. and IX. Children of grades V. to IX., living in the East Union street district north of Tyler street (not including it) and east of Hancock street, attend the Buckingham school.

CAREW STREET PRIMARY AND GRAMMAR SCHOOL.—On the south side of Carew street, near Main street. Area of lot, 35,911 square feet.

This district is bounded on the north by Sargeant, Carew, and Arbor streets (including them); on the east by Cass street north of Linden (including it). Thence the boundary line extends along Linden to Chestnut street and down Chestnut to Tenth street, through Tenth and Vine streets (including them). The western boundary is the Boston and Maine railroad.

Pupils of grades I. to V., inclusive, residing on Emery and Clinton streets attend this school.

CENTRAL STREET PRIMARY AND GRAMMAR SCHOOL.—Corner of Central and Spruce streets. Area of lot, 55,460 square feet.

This district extends from the U. S. Watershops westerly along Mill river to the junction of Mill and Locust streets; thence along Mill and Pine streets (including Crescent Hill) to Avon place (not including it); from Avon place along Maple to Central; Central to Cedar to Ashley; along Ashley to Alden, and along Alden and Hickory streets to the junction of these two streets. This district also includes Madison avenue and Sterns terrace.

Pupils of grades I. to IV., inclusive, residing in that part of the Alden

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street district which lies within the boundaries of the Central street district, attend the Alden street school.

Pupils of grades I. to V., inclusive, residing in that part of the Eastern avenue district which lies within the boundaries of the Central street district, attend the Eastern avenue school.

Pupils of grades VIII. and IX., residing in that part of the Barrows district bounded by Pine, Walnut, and King streets easterly to Bonnyview avenue, and Hancock to Ashley streets, including these streets, attend the Central street school.

CHARLES STREET PRIMARY SCHOOL.—On the north side of Franklin street, opposite Charles street. Area of lot, 9,856 square feet.

This district is bounded on the north by Tenth street (not including it); on the east by Cass street, south of Linden, Webster, and Vinton streets, and Liberty street west of Webster street (including them); on the south by the Boston and Albany railroad; on the west by a line cutting Greenwood and Franklin streets at Nos. 93 and 94 (not including them), Congress street east of Nos. 58 and 59 (including them), and by Chestnut street from Tenth street to the Boston and Albany railroad.

The district includes Cass street south of Linden, Webster, Vinton, Liberty street west of Webster, Chestnut street south of Tenth and north of the Boston and Albany railroad. It also includes Greenwood and Franklin streets east of Nos. 93 and 94 (not including these numbers), and Congress street east of Nos. 58 and 59 (including them).

CHESTNUT STREET GRAMMAR SCHOOL.—On the east side of Chestnut street, near Prospect street. Area of lot, 138,794 square feet.

This district includes all the territory in the northern part of the city, the southern boundary being the Boston and Albany railroad.

Pupils of grades VI. and VII. residing in those parts of this district which are included in the Lincoln, Worthington street, and Armory street districts attend the latter schools.

EASTERN AVENUE PRIMARY AND GRAMMAR SCHOOL.—On the corner of Eastern avenue and Alden street. Area of lot, 27,560 square feet.

This district is bounded on the north by King street, from Nelson street to its easterly terminus; on the west by Nelson street from King to Greene streets, thence the boundary line extends along Greene street to Eastern avenue; along Eastern avenue to Manhattan street; along

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Manhattan to Walnut; along Walnut to Hickory; along Hickory east to Bonnyview avenue. All the foregoing streets, except Walnut, are included in this district.

EAST MAIN STREET PRIMARY SCHOOL.—Main street, Indian Orchard. Area of lot, 30,122 square feet.

This district includes that section of Indian Orchard (for primary grades only) lying east of Cedar street (not including it).

EAST UNION STREET PRIMARY SCHOOL.—On the north side of Union street, between Hancock street and Eastern avenue. Area of lot, 24,298 square feet.

This district extends from the New England railroad westerly along Wilbraham road and the middle of State street to Hancock; along Hancock to King street; along King street (not including it) to the railroad; along the railroad to Wilbraham road.

FOREST PARK GRAMMAR SCHOOL.—On Garfield street, off Belmont avenue. Area of lot, 120,118 square feet.

All the children of grades VI. to IX. living in the Sumner avenue and Kensington avenue school districts, and all children of grades VII. to IX. living in the White street school district, will attend this school.

FOREST PARK PORTABLE PRIMARY SCHOOL.—On the corner of Woodlawn avenue and Washington street. Area of lot, 87,120 square feet.

This district is bounded on the west by Dickinson street (not including it) from Sumner avenue east to the Longmeadow line. The northern boundary is as follows: Beginning at the corner of Sumner avenue and Dickinson street, along Sumner avenue (not including it) to Orlando street (only including numbers beyond 32 on latter street), through Bryant street (only including numbers beyond 38), through Lyndale street (only including numbers beyond 48), through Whittier avenue (only including numbers beyond 52), through Whittier court (not including it) to White street (not including it), to Morningside Park (not including it), through to Bethel street (not including it).

GLENWOOD SCHOOL.—On the north side of Springfield street, near its junction with Armory street, and near the Chicopee line. Area of lot, 43,656 square feet.

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HOMER STREET PRIMARY AND GRAMMAR SCHOOL.—On Homer street, between State street and Wilbraham road. Area of lot, 53,469 square feet.

This district is bounded on the west and south by the East Union street, Eastern avenue, and Tapley school districts; on the north by the Boston and Albany railroad and the Tapley district, no boundary being fixed for the eastern side of the district.

HOOKER PRIMARY AND GRAMMAR SCHOOL.—On the east side of Main street, between Tenth and Greenwood streets. Area of lot, 33,407 square feet.

This district is bounded on the north by Tenth and Vine streets (not including them); on the east by a line cutting Greenwood and Franklin streets at Nos. 93 and 94 (including them), Congress street at Nos. 58 and 59 (not including them), Sharon street at Nos. 135 and 136 (not including them), Ferry street at Nos. 169 and 172 and Liberty street at No. 76 (including them); on the south by the Boston and Albany railroad; on the west by Fulton street from Vine street to Cypress street (not including Clinton and Emery streets); Main street from Tenth street to the arch is included in this district.

For grades IV. and V., this district is bounded on the east by Chestnut street between Tenth and Sharon streets.

This district includes Congress street in grades IV. and V.

This district includes pupils of grades I. to III., inclusive, living south of the Boston and Albany railroad, west of Main street, and north of Bridge street (not including it).

HOWARD STREET PRIMARY AND GRAMMAR SCHOOL.—On the south side of Howard street. Area of lot, 71,210 square feet.

This district is bounded on the north by Bridge street (not including it between Main and Chestnut streets); on the east by Chestnut and Maple streets (not including these streets) from Bridge street to Cross street; on the south by Cross and Howard streets.

Children of grades VI. and VII. living in the Acushnet avenue school district and children of grades IV.A to VII. living in the William street school district also attend this school.

All the streets mentioned above are included in this district, except when otherwise stated.

Mill street and the easterly half of Central street, between Main and Maple streets, is regarded as belonging to Central street district for those who prefer it on account of its nearness.

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JEFFERSON AVENUE PRIMARY AND GRAMMAR SCHOOL.—On the south side of Jefferson avenue, corner of North street. Area of lot, 20,003 square feet.

This district is bounded on the north by Calhoun and Huntington streets (including them); on the west by the Boston and Maine railroad; on the south by Sargeant and Carew streets (not including them), no eastern boundary being fixed for this district.

KENSINGTON AVENUE PRIMARY AND GRAMMAR SCHOOL.—On the south side of Kensington avenue, between Earl and Oakland streets. Area of lot, 110,320 square feet.

This district is bounded on the north by Mill river and on the south by Forest Park. The eastern boundary line extends from Mill river along White street to Pasadena street, along Pasadena street to Alderman street, along Alderman street to Ventura street, along Ventura street to Sumner avenue, along Sumner avenue to Dickinson street, and along Dickinson street to Longmeadow line.

The western boundary line extends from Mill river along Fort Pleasant avenue and Forest Park avenue to Forest Park; exclusive of Belmont avenue from No. 176 to Mill street; Woodside terrace, Leyfred terrace, and Blake hill; also the area bounded by Garfield street, Churchill street, Sumner avenue, and Forest Park avenue.

LINCOLN PRIMARY AND GRAMMAR SCHOOL.—On the west side of Chestnut street, between Harriet and Cumberland streets. Area of lot, 30,713 square feet.

This district is bounded on the west by the Boston and Maine railroad; on the south by Calhoun and Huntington streets (not including them), no boundaries being fixed for the northern and eastern sides of this district.

Pupils of grades V. to VII. living in the Brightwood district attend this school.

MYRTLE STREET PRIMARY AND GRAMMAR SCHOOL.—At the corner of Worcester and Myrtle streets, Indian Orchard. Area of lot, 54,639 square feet.

This district includes Indian Orchard, except that for primary grades it includes only the section west of Cedar street.

RUSHVILLE PORTABLE PRIMARY SCHOOL.—On the south side of Dewey street, near Berkshire avenue. Area of lot, 87,120 square feet.

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This district extends on the north from Superior street; along Lake Drive; across the Boston and Albany Railroad; along Brandon avenue to Boston road; along Boston road to Arlington avenue; along Arlington avenue (not including it) to north branch of Mill river. The eastern boundary is the north branch of Mill river. The southern boundary is along Morton avenue and Bay street (not including Bay street) to Boston and Albany railroad. There is no western boundary fixed.

School Street Primary and Grammar School.—Southeast corner of School and High streets. Area of lot, 86,156 square feet.

This district is bounded on the north by Pearl street (not including it), and by State from Byers street to Walnut street; on the west by Chestnut and Maple streets, from Pearl to Avon place; on the south by Avon place, Mulberry and Union streets to Walnut, and on the east by Walnut street (not including it), including the streets mentioned, except when otherwise stated.

State Street Grammar School.—On the south side of State street, west of the Central high school. Area of lot, 30,992 square feet.

This school is for pupils of grades VIII. and IX., residing in that part of the Barrows district west of Bowdoin street (not including it) and west and including Oak and Walnut streets to Pine street. It further includes pupils of grades VIII. and IX., from the Howard street district, and from that part of the Worthington street district south of the railroad.

Pupils of grades VII., VIII., and IX., residing in the School street district also attend this school.

Pupils of grades VII. to IX., living in that part of the Tapley district west of Harvard street and north of St. James avenue, may attend the State street school at the option of their parents.

Strickland Primary and Grammar School.—On the southwest corner of Oak and Union streets. Area of lot, 15,753 square feet.

From the Boston and Albany railroad along Armory street to Worthington (including Armory street court); Worthington to Magazine; along Magazine to State; through the middle of State street easterly to Hancock; along Hancock (not including it) to King; along King and James streets (not including these streets) to Cedar; along Cedar (not including it) to Pine; along Pine to Walnut; along Walnut and Federal streets to the Boston and Albany railroad.

Sumner Avenue Primary and Grammar School.—On the south side of Sumner avenue between Beechwood avenue and Long Hill street. Area of lot, 98,000 square feet.

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This district is bounded on the north by Mill river; on the east the boundary line extends along Belmont avenue from Mill street to No. 176, inclusive, and continuing along Belmont avenue to Garfield street (not including this latter section of Belmont avenue), along Garfield street to Churchill street, along Churchill street to Sumner avenue (including these two streets); on the south by Forest Park and by Sumner avenue (between Churchill street and Forest Park avenue). In addition, the district shall include Woodside terrace, Leyfred terrace, and Blake hill.

Children of kindergarten age living in the section bounded by Churchill street, Garfield street, Belmont avenue, Dickinson street (from Belmont avenue to Forest Park), and Forest Park, and also children living on Mill street (from Locust street to Pine street) may attend the Sumner avenue school at the option of their parents, and children from these sections who are regular attendants of the Sumner avenue kindergarten will be enrolled as pupils of the school upon their promotion to first grade. If there is room for them, children from these sections applying for admission to grades above the first will be enrolled in the school, with the understanding that they will be transferred to their own particular districts as soon as the grade is filled by pupils residing within the Sumner avenue school district.

Tapley Primary and Grammar School.—On the southwest corner of Bay and Sherman streets. Area of lot, 92,626 square feet.

This district extends from the Boston and Albany railroad along Bowdoin street to Worthington; along Worthington westerly to Magazine street; along Magazine (not including it) to State; through the middle of State street easterly to the New England railroad; along this railroad to Burr street; Burr to Oak Grove avenue; Oak Grove avenue to Bay; along Bay street to the Boston and Albany railroad (including Aster, Goldenrod, Arbutus, and Baywood streets); along the Boston and Albany railroad to Bowdoin street.

Children of the Dry Bridge district attend the Tapley school for grades V. and VI.

White Street Primary and Grammar School.—On the west side of White street between Dawson avenue and Buckler street. Area of lot, 100,000 square feet.

This district is bounded on the north by the Watershops pond; on the west the boundary line extends from the Watershops pond along White street to Pasadena street, along Pasadena street to Alderman

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street, along Alderman street to Ventura street, and along Ventura street to Sumner avenue, along Sumner avenue to Dickinson street, along Dickinson street to the Longmeadow line. On the south this district is bounded by Longmeadow, no eastern boundary being fixed.

Pupils of Grades I and II, living in that part of district of White street school which lies within the boundaries of the Forest Park Portable School, attend the latter school.

WILLIAM STREET PRIMARY SCHOOL.—On the south side of William street between Main and Water streets. Area of lot, 35,602 square feet.

This district is bounded on the north by Howard and Cross streets (not including them); on the east by Maple street (not including it); and on the south by Whitney avenue, Fremont, and Central streets, including these streets.

WORTHINGTON STREET PRIMARY AND GRAMMAR SCHOOL.—On the south side of Worthington street, east of Spring street. Area of lot, 30,756 square feet.

This district includes, north of the Boston and Albany railroad, pupils of grades I. to VII., inclusive, living on Sharon street east of Nos. 135 and 136 (including them); on Ferry street east of Nos. 169 and 172 (not including it); and on Liberty street at No. 76 (not including it) and Chestnut street. It also includes pupils of grades IV. to VII., inclusive, living on Chestnut street south of Sharon street.

On the south side of the Boston and Albany railroad, the boundary line for grades I. to VII., inclusive, extends along the Connecticut river to Bridge street, along Bridge street to Chestnut, including Bridge street only from Main to Chestnut; thence along Chestnut to Pearl, along Pearl to Federal, and along Federal to the Boston and Albany railroad, all the streets named being included.

Pupils of grades I. to III., inclusive, residing in that portion of the Worthington street school district west of Main street and south of the Boston and Albany railroad attend the Hooker school.

DRY BRIDGE UNGRADED SCHOOL.—On St. James circle near St. James avenue. Area of lot, 11,530 square feet.

FIVE MILE POND UNGRADED SCHOOL.—At Dimmock's Corner, on the Boston road about five miles from Court Square. Area of lot, 18,887 square feet.

SIXTEEN ACRES UNGRADED SCHOOL.—Near Sixteen Acres pond, and near the junction of North Wilbraham road with the road leading from Ludlow to East Longmeadow, about six miles from Court Square. Area of lot, 15,056 square feet.

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STATISTICS OF THE

SPRINGFIELD HIGH SCHOOLS.

CENTRAL HIGH SCHOOL

FROM ITS ORGANIZATION IN 1849

YEAR.	Number of Pupils.	Number of Graduates.	YEAR.	Number of Pupils.	Number of Graduates.
1849	158		1883	322	42
1850	170		1884	322	49
1851	185		1885	348	34
1852	159		1886	379	43
1853	170		‡1887	372	61
1854	176		1888	370	52
1855	186		1889	344	61
*1856	166	9	1890	345	45
1857	156	14	1891	391	56
1858	172	14	1892	408	52
1859	166	17	1893	429	53
1860	173	25	§1894	468	53
1861	163	13	1895	483	51
1862	177	17	1896	484	58
1863	174	15	1897	525	86
1864	162	5	1898	569	83
1865	146	21	1899	622	70
1866	137	10	1900	657	124
1867	148	12	1901	704	84
1868	195	16	1902	751	103
†1869	217	2	1903	763	111
1870	207	14	1904	890	120
1871	181	19	1905	975	133
1872	172	24	1906	1002	158
1873	185	21	‖1907	730	130
1874	201	20	1908	697	112
1875	246	16	1909	771	132
1876	336	33	1910	767	120
1877	354	27	1911	813	91
1878	407	51	1912	831	118
1879	426	54	1913	813	117
1880	405	58	1914	855	131
1881	372	46	1915	924	126
1882	346	44	1916	971	135

TECHNICAL HIGH SCHOOL.¶

1899	18		1908	787	78
1900	61		1909	928	65
1901	77	2	1910	1,051	88
1902	90	3	1911	669	60
1903	120	16	1912	791	52
1904	162	18	1913	857	78
1905	180	13	1914	956	93
1906	223	14	1915	,031	115
‖1907	681	66	1916	1,068	101

HIGH SCHOOL OF COMMERCE.

1911	480	40	1914	688	81
1912	547	69	1915	841	89
1913	579	68	1916	1,047	124

*Previous to this date there were no graduating exercises.

†The course was changed this year from three to four years.

‡This was the first year that any pupils were graduated in the two years' Business Course.

§The Business Course was abolished after 1894.

¶The Technical High School was organized in August, 1898.

‖Commercial Department transferred from Central High to Technical High in September, 1906.

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EXPENDITURES, SCHOOL POPULATION, AND ENROLLMENT.

From the Organization of the City in 1852.

From 1852 to 1856 expenditures for repairs were included in current expenses.
The Manual Training School was established in 1886 (reorganized as the Mechanic Arts High School in 1898); the Cooking School in 1893; and the public Kindergarten in 1894 The amounts expended under these heads are included under "Current Expenses."

YEAR.	Current Expenses.	Repairs and Alterations.	New Buildings.	School Census.	Enrollment.	Aver. No. Belonging
1852	$6,558 89	.....	.....	2,188	2,270	1,549
1853	13,257 31	.....	.....	2,253	2,273	1,642
1854	15,049 89	.....	.....	2,449	2,561	1,621
1855	16,451 22	.....	.....	2,641	2,409	1,769
1856	17,591 03	.....	.....	2,606	2,441	1,815
1857	18,727 67	$4,146 81	$6,403 47	2,525	2,459	1,824
1858	18,494 40	3,144 54	671 00	2,675	2,569	1,862
1859	18,315 77	2,939 82	1,553 16	2,505	2,546	1,855
1860	18,115 04	3,532 04	.....	2,472	2,594	1,934
1861	17,961 30	2,956 24	.....	2,688	2,752	1,959
1862	19,358 08	2,601 92	.....	3,090	3,027	2,133
1863	22,361 56	939 55	.....	3,341	3,308	2,342
1864	29,941 54	5,662 30	10,645 00	3,709	3,753	2,298
1865	37,242 93	5,516 10	53,969 78	3,713	3,822	2,490
1866	48,542 28	5,728 90	59,062 72	3,846	3,675	3,187
1867	54,423 56	3,718 32	41,267 84	4,225	3,760	3,266
1868	66,544 60	7,529 04	62,270 59	4,141	4,029	3,304
1869	68,524 83	7,778 57	34,285 49	4,156	4,617	3,509
1870	73,636 97	4,027 70	12,444 57	4,232	4,679	3,922
1871	79,489 26	4,096 28	28,490 00	4,167	4,901	3,717
1872	92,286 88	5,086 27	71,202 63	4,331	4,853	3,674
1873	96,389 77	16,760 80	53,095 82	4,399	5,238	3,900
1874	110,066 43	16,545 76	69,979 01	4,712	5,448	4,071
1875	115,788 04	21,958 95	17,098 73	5,668	5,743	4,296
1876	106,949 96	5,221 48	.....	5,408	5,890	4,481
1877	89,489 74	2,938 91	.....	5,375	5,877	4,615
1878	83,087 62	1,708 02	.....	5,379	5,625	4,298
1879	81,780 65	2,528 04	.....	5,524	5,636	4,475
1880	83,053 74	7,497 14	1,169 69	5,865	5,834	4,538
1881	88,267 73	9,240 86	.....	6,285	5,981	4,667
1882	92,081 29	9,068 23	.....	6,452	6,054	4,727
1883	98,624 26	10,672 68	17,228 99	6,566	6,070	4,661
1884	107,523 95	10,159 73	7,664 96	6,583	5,520	4,327
1885	111,851 90	7,490 23	1,626 17	6,330	5,665	4,517
1886	109,990 53	7,021 26	.....	6,472	5,813	4,648
1887	115,749 65	9,399 94	19,053 56	6,516	5,841	4,643
1888	124,739 06	9,348 20	30,712 40	6,416	5,922	4,647
1889	134,938 12	9,314 65	39,072 98	6,935	6,165	4,982
1890	146,488 62	16,208 53	48,943 67	7,054	6,455	5,180
1891	157,644 68	17,630 70	76,052 19	7,134	7,214	5,128
1892	163,570 40	10,447 98	13,829 18	7,318	7,805	5,585
1893	172,298 48	11,549 10	26,314 01	7,716	8,357	5,799
1894	184,592 41	10,995 75	46,562 87	8,002	8,553	6,340
1895	198,620 20	13,647 77	26,758 82	8,041	8,962	6,661
1896	219,531 84	8,911 17	43,878 11	8,307	9,670	7,074
1897	239,679 72	16,095 08	238,196 30	8,814	9,494	7,869
1898	265,158 05	38,881 39	363,249 04	9,202	10,044	8,260
1899	302,854 35	12,706 09	71,783 82	9,738	10,786	9,072
1900	321,804 66	11,437 20	81,698 41	10,251	11,261	9,300
1901	339,677 59	24,030 85	94,340 94	10,405	11,574	9,612
1902	351,999 63	13,167 60	96,268 67	10,899	12,162	10,206
1903	359,317 47	15,438 28	100,385 33	11,490	12,542	10,290
1904	399,359 63	17,947 82	87,274 88	11,738	12,842	10,818
1905	400,821 51	18,216 94	256,946 05	*13,059	13,161	11,183
1906	424,437 43	20,671 47	149,771 35	*13,359	13,601	11,372
1907	†373,330 38	†21,552 30	†122,727 70	*13,786	13,796	11,516
1908	485,064 25	25,613 77	139,180 18	*14,091	14,451	12,378
1909	509,693 30	26,425 33	46,449 47	*14,335	14,988	12,806
1910	546,894 49	29,136 91	43,141 00	*14,659	15,576	13,024
1911	599,246 97	23,458 83	88,861 00	*15,221	16,074	13,550
1912	640,527 83	35,716 10	42,087 33	*15,915	16,584	13,847
1913	696,066 08	37,072 32	235,401 52	*16,855	17,492	14,563
1914	‡769,435 20	‡41,002 78	‡891,761 02	*17,480	18,696	15,935
1915	856,279 15	36,979 03	243,441 01	*18,129	19,329	16,632
1916	921,230 24	65,635 85	163,463 98	.....	20,197	17,159

* From five to sixteen years of age.
† Expenditures are for 11 months.
‡ Expenditures are for 13 months, except for teachers' salaries, which are for one year.

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TABLE GIVING A BRIEF DESCRIPTION OF SCHOOL PROPERTY.

BUILDINGS.	No. of Regular Schoolrooms.	No. of Portable Schoolrooms.	No. of Desks and Seats.	No. of Kindergartens.	No. of Recitation Rooms.	Special Rooms.					Assembly Halls.	Gymnasiums.	Wood or Brick.	No. of Stories.	Condition.	Date of Occupation.	Heating Apparatus.	Area Lots. (Square Feet.)
						Manual Training or Shop.	Drawing.	Cooking.	Sewing.	Laboratories.								
Central High	17	..	888	..	13	..	1	1	1	7	2	1	B	3	Good	1896	Steam	79,874
High School of Commerce	49	..	1,533	..	5	1	1	2	2	5	1	2	B	3	New	1915	Steam	129,480
Technical High	18	..	814	..	..	12	4	1	2	..	1	1	B	3	Good	1906	H. W.	103,201
Vocational	..	..	....	..	1	5	..	..	..	..	1	..	B	2	Good	1891	H. A.	14,013
Acushnet Avenue	12	..	492	1	1	..	..	..	..	..	..	..	B	2	Good	1896	Steam	33,680
Alden Street	4	..	149	..	..	..	..	..	..	..	..	..	B	2	Good	1890	Steam	19,765
Armory Street	20	..	861	1	..	1	..	1	..	..	..	..	B	2	Good	1901	Steam	56,700
Barrows	9	..	380	..	1	1	..	..	..	..	1	..	B	3	Good	1868	Steam	37,498
Boston Road	4	..	155	..	..	..	..	..	..	..	..	..	W	2	Good	1899	H. A.	22,500
Brightwood	10	2	495	1	1	..	..	..	..	..	..	..	B	2	Good	1899	Steam	87,120
Buckingham	25	..	1,064	..	2	2	1	1	1	..	1	1	B	2	Good	1891	H. A.	94,570
Carew Street	14	..	566	..	..	..	..	..	1	..	..	..	B	2	Good	1894	H. A.	35,911
*Carlisle	1	..	....	..	..	..	..	..	..	..	..	..	B	2	....	....	Stove	17,192
Central Street	19	..	706	1	2	1	..	1	..	..	..	..	B	3	Good	1871	Steam	55,460
Charles Street	4	..	172	..	..	..	..	..	..	..	..	..	B	2	Good	1890	Steam	9,856
Chestnut Street	39	..	1,629	..	..	5	2	2	2	..	..	.	B	3	Good	1903	Steam	138,794
Dry Bridge	1	1	69	..	..	..	..	..	..	..	..	..	W	1	Good	1881	Stove	11,530
Eastern Avenue	7	..	281	1	1	..	..	..	..	..	..	..	B	2	Good	1899	H. A.	27,560
East Main Street, I. O.	4	..	148	1	..	..	..	..	..	..	..	..	W	2	Good	1898	H. A.	30,122
East Union Street	7	..	285	1	..	..	..	..	1	..	..	..	B	2	Good	1876	Steam	24,296
Five Mile Pond	1	..	31	..	..	..	..	..	..	..	..	..	B	2	Good	....	Stove	18,887
Forest Park	20	†1	827	..	1	3	1	1	2	..	1	..	B	3	Good	1899	Steam	120,118
Forest Park Portable	..	2	83	..	..	..	..	..	..	..	..	..	W	1	New	1916	Stove	87,120
Glenwood	4	..	76	..	..	..	..	..	..	..	..	..	B	2	Good	1903	Steam	43,656
Homer Street	9	1	408	1	..	..	..	..	..	..	..	..	B	2	Good	1898	Steam	53,469
Hooker	14	..	601	1	..	1	..	..	..	..	..	..	B	3	Good	1866	Steam	33,407
Hooker (New)	..	..	....	..	..	..	..	..	..	..	..	..	...	...	....	....	....	55,562
Howard Street	18	..	769	1	..	1	..	..	1	..	..	..	B	2	Good	1906	Steam	71,210
Jefferson Avenue	11	..	464	1	..	..	..	..	.	..	..	..	B	2	Good	1889	Steam	20,003
Kensington Avenue	16	..	642	1	..	..	..	..	..	..	..	..	B	2	Good	1909	Steam	110,320
Lincoln School	15	..	629	..	..	1	..	..	..	..	1	..	B	2	Good	1910	Steam	30,713
Myrtle Street, I. O.	18	.	728	1	2	1	..	1	1	..	1	1	B	3	Good	1868	Steam	54,639
Open-Air	..	1	40	..	..	..	..	..	..	..	..	..	W	1	Good	1911	Steam	....
Rushville Portable	..	2	84	..	..	..	..	..	..	..	..	..	W	1	New	1916	Stove	87,120
School Street	4	..	168	..	1	..	..	..	..	..	..	..	B	2	Good	1892	Steam	86,156
Sixteen Acres	2	..	44	..	..	..	..	..	..	..	..	..	B	2	Good	....	Stove	15,056
State Street	*13	.	483	..	2	1	1	1	1	..	..	..	B	3	Good	1874	Steam	30,992
Strickland	6	1	248	..	..	..	..	..	..	..	..	..	B	2	Good	1884	H. A.	15,753
Sumner Avenue	9	..	366	1	1	..	..	..	..	..	1	..	B	2	Good	1912	Steam	98,000
Tapley	14	..	597	1	1	..	..	..	1	..	1	..	B	2	Good	1888	Steam	92,626
*Wachogue	1	..	40	..	..	..	..	..	..	..	..	..	W	1	Fair	....	Stove	8,275
White Street	10	..	422	1	..	1	..	..	..	..	..	..	B	2	Good	1905	Steam	100,000
William Street	10	..	406	1	..	..	..	..	..	..	..	..	B	2	Good	1901	Steam	35,602
Worthington Street	13	..	522	1	..	..	..	..	..	..	..	..	B	3	Good	1869	Steam	30,756
Storehouse, Emery St.	..	..	....	..	..	..	..	..	..	..	..	..	B	2	Good	1913	Steam	6,808
Old office, Vernon St.	..	..	....	..	..	..	..	..	..	..	..	..	W	2	Poor	....	Steam	6,872
.....	472	11	19,405	18	35	37	11	12	16	12	12	6	..	..	....	....	.....	....

* Unused.
† Used as manual training room.

Under Heating Apparatus, H. A.=Hot Air.
" " " H. W.=Hot Water.

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SPRINGFIELD PUBLIC SCHOOLS

RATES OF TUITION FOR NON-RESIDENT PUPILS.

DAY SCHOOLS.	First Term.	Second Term.	Third Term.	Fourth Term.	Year.
High Schools,	$40.00	$20.00	$20.00	$20.00	$100.00
Grammar Schools,	14.00	7.00	7.00	7.00	35.00
Primary Schools,	8.00	4.00	4.00	4.00	20.00
Ungraded Schools,	8.00	4.00	4.00	4.00	20.00
Vocational School,	40.00	20.00	20.00	20.00	100.00

EVENING SCHOOLS.	FOR THE SEASON.
High,	$15.00
Grammar and Primary,	15.00
Trade Classes,	10 and 15

Tuition is payable one term in advance. It should be paid directly to the City Collector at Administration Building, who will give a receipt for it. Upon presentation of this receipt to the Superintendent a permit will be given the pupil for admission to school.

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REPORT OF

SCHOOLHOUSE AGENT FOR 1916

SPRINGFIELD, MASS., December 23, 1916.

To His Honor, the Mayor, and the City Council.

GENTLEMEN:—I hereby submit for your consideration the annual report of the Schoolhouse Agent for the year ending December 2, 1916.

The work of this department is classified as follows: Schoolhouse Property, which is the care of the school buildings and grounds and is divided into the following items,—Administration, Operation, Maintenance, and Fire Prevention; Municipal Heating and Lighting Plant, divided into Services, Supplies, and Equipment; and Militia Rifle Range, divided into Services, Fixed Charges, Care of Building, Grounds, etc.

During the present year alterations have been made to the house at 374 Central Street, making additional space for grammar and special preparatory classes, four class rooms have been added to the Chestnut Street School, one room at the Lincoln School, one room at the Homer Street School, one room at the Sumner Avenue School, two rooms in the basement of the Forest Park School, also a one-room portable house at St. James circle, a two-room portable house at the foot of Dewey street near Berkshire street, a two-room portable house at the corner of Woodlawn and Washington streets, and an addition to the Worthington Street School.

With the completion of the Worthington Street School the Fire Prevention Work as planned by the City Property Committee is now practically complete. The school buildings of the city are in excellent condition for the protection of the pupils from fire and smoke hazard. All the school buildings are now supplied with sufficient exits from all floors, making it easy for the pupils to leave the buildings in safety. The work for smoke and fire prevention consisted of inclosed fire escapes on the Barrows, Chestnut Street, Forest Park, and School Street schools, and open fire escapes on the East Union Street, Hooker, and Sixteen Acres schools. Other work consisted of the isolation of the boiler and furnace

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SCHOOLHOUSE PROPERTY.

Administration.

Salary, Schoolhouse Agent,	$2,439.59	
Clerical assistance,	2,452.31	
Office supplies and equipment,	204.32	
Advertising,	171.30	
Stamps and stamped envelopes,	60.85	
Telephones and telegrams,	3.21	
Traveling expenses and meals,	86.30	
Total expenditures for Administration,		$5,417.88

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rooms from stairways and adjacent rooms in the basements. Metal cabinets were built for electric batteries, switches, etc. Brick inclosures were built in the basements for the storage of lumber, and metal cabinets were built for the storage of paints, oil, etc. Fireproof charcoal bins were built in all buildings, and the ventilating shaft doors in the basements were made fire and smoke proof. Additional fire extinguishers and self-closing receptacles for paper were placed in all buildings. Also all buildings were equipped with the Fireman's Gas Shut-Off to be used by firemen in case of fire.

See report for expenditures in detail.

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SCHOOLHOUSE PROPERTY.

ADMINISTRATION.

Salary, Schoolhouse Agent,	$2,439.59	
Clerical assistance,	2,452.31	
Office supplies and equipment,	204.32	
Advertising,	171.30	
Stamps and stamped envelopes,	60.85	
Telephones and telegrams,	3.21	
Traveling expenses and meals,	86.30	
Total expenditures for Administration,		$5,417.88

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SCHOOLHOUSE PROPERTY.—OPERATION.

School	Care of Buildings and Grounds	Fuel	Light and Power	Lawns and Grading	Janitor Supplies and Sundry Furnishings	Totals
Acushnet Avenue,	$1,476 70	$797 81	$323 54	$4 45	$17 90	$2,620 40
Alden Street,	793 06	345 17	37 37	1 80	14 36	1,191 76
Armory Street,	1,983 82	1,384 91	192 76	185 69	37 41	3,784 59
Barrows,	1,370 05	608 20	224 85	174 29	21 11	2,398 50
Boston Road,	790 00	234 30	46 99	80	11 75	1,083 84
Brightwood,	1,342 23	807 67	94 74	107 44	23 99	2,376 07
Buckingham,	2,908 50	1,914 14	467 43	8 90	47 17	5,346 14
Carew Street,	1,467 50	788 55	98 58	14 10	24 20	2,392 93
Carlisle (unoccupied),	25 05	.....	.....	.....	.....	25 05
*Central Street,	2,098 08	1,677 47	158 31	112 85	41 58	4,088 29
Charles Street,	810 97	266 85	2 21	2 99	4 76	1,087 78
Chestnut Street,	4,953 95	2,795 38	1,094 70	40 54	122 06	9,006 63
Dry Bridge,	292 86	50 98	.....	.....	6 19	350 03
Eastern Avenue,	1,131 90	603 74	8 69	1 60	19 68	1,765 61
East Union Street,	1,137 40	561 75	186 57	42 30	17 32	1,945 34
Emery Street Shop,	936 98	410 85	53 22	.....	44 01	1,445 06
Five Mile Pond,	216 00	55 53	.....	.....	3 96	275 49
Forest Park,	2,075 70	1,617 03	332 30	29 24	79 68	4,133 95
Glenwood,	785 00	65 58	13 45	141 52	4 00	1,009 55
High (Central),	6,220 27	2,159 24	1,132 43	16 00	111 11	9,639 05
High (Commercial),	16,394 13	5,895 31	532 55	47 45	342 36	23,211 80
High (Technical),	6,888 65	2,929 79	1,478 79	9 60	354 82	11,661 65
Homer Street,	1,339 60	705 71	22 95	6 62	13 74	2,088 62
Hooker,	1,730 52	1,251 23	244 84	19 40	32 75	3,278 74
Howard Street,	2,335 77	453 96	640 63	10 95	56 49	3,497 80
Indian Orchard Grammar,	2,978 70	1,682 65	703 51	5 65	35 86	5,406 37
Indian Orchard Primary,	1,012 43	495 21	36 52	3 20	6 60	1,553 96
Jefferson Avenue,	1,286 44	662 10	148 30	5 00	12 99	2,114 83
Kensington Avenue,	1,742 60	902 80	240 46	12 95	28 55	2,927 86
Lincoln,	1,545 80	864 97	240 58	17 50	35 73	2,704 58
School Street,	826 84	351 72	28 29	80	7 84	1,215 49
Sixteen Acres,	361 00	137 38	.....	.....	8 00	506 38
State Street,	1,656 71	1,079 62	308 77	.....	44 08	3,089 18
Strickland,	1,020 77	513 84	62 45	80	15 85	1,613 71
Sumner Avenue,	1,384 76	644 08	161 29	31 29	20 41	2,241 83
Tapley,	1,490 08	1,093 05	145 88	6 40	21 45	2,756 86
†Vocational,	1,470 52	737 84	657 01	.....	58 79	2,924 16
White Street,	1,292 45	798 29	197 38	24 10	22 27	2,334 49
William Street,	1,338 65	862 56	290 56	134 80	32 44	2,659 01
Worthington Street,	1,476 21	877 12	319 08	220 51	31 20	2,924 12
Rushville Portable,	102 13	30 69	.....	.....	.....	132 82
Washington Street Portable,	117 30	33 79	.....	.....	75	151 84
Totals,	$82,608 08	$40,148 86	$10,927 98	$1,441 58	$1,835 21	$136,961 66
				Amount carried forward,		$136,961 66

*Including 374 Central Street.
†Including 47 Vernon Street.

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Amount brought forward,		$136,961.66
Automobiles:		
Salaries of chauffeur and helper,	$1,177.78	
Supplies and replacements,	521.89	
		1,699.67
Freight and cartage,		149.47
Care of rented property,		127.70
Miscellaneous items and supplies on hand,		640.72
Miscellaneous expenses,		252.20
Total expenditures for Operation,		$139,831.42

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SCHOOLHOUSE PROPERTY.—MAINTENANCE.

School	Alterations and Permanent Work	Electrical Work	Furniture and Furnishings	Heating and Plumbing	Painting and Glazing	Roof Repairs	Miscellaneous Labor and Materials	Totals
Acushnet Avenue,	$161 95	$51 31	$44 41	$119 30	$669 58	$76 79	$18 43	$1,141 77
Alden Street,	50 29	3 05	.....	45 89	33 45	21 15	2 30	156 13
Armory Street,	125 95	102 07	9 16	219 81	152 89	24 91	13 35	648 14
Barrows,	290 56	32 03	1 80	45 95	134 01	13 62	40 26	558 23
Boston Road,	61 15	3 17	7 02	44 13	42 07	.....	53 53	211 07
Brightwood,	655 97	85 45	48 12	23 45	76 06	.....	42 61	931 66
Buckingham,	157 51	93 35	.....	139 78	142 23	.....	27 64	560 51
Carew Street,	202 15	47 05	119 31	36 41	105 63	55 95	38 19	604 69
Central Street,	160 93	60 44	111 70	116 27	272 17	26 58	46 76	794 85
374 Central Street,	425 82	135 81	107 04	721 41	336 17	20 48	25 15	1,771 88
Charles Street,	63 54	8 25	76 60	129 41	13 37	10 61	7 10	308 88
Chestnut Street,	3,314 32	200 04	1,395 09	524 40	292 90	78 80	38 56	5,844 11
Dry Bridge,	1,781 75	.....	264 95	3 00	77 20	9 51	5 90	2,142 31
Eastern Avenue,	118 92	2 73	16 80	97 82	54 97	4 65	22	296 11
East Union Street,	400 46	80 70	30 05	93 19	91 30	.....	29 15	724 85
Five Mile Pond,	.....	.....	.....	.....	35 38	.....	8 64	44 02
Forest Park,	709 12	944 30	269 30	193 13	200 89	.....	78 33	2,395 07
Glenwood,	40 53	15 84	21 90	12 73	30 23	23 69	2 25	147 17
High (Central),	315 18	232 21	213 36	189 44	278 54	48 31	82 31	1,359 35
High (Commercial),	.....	37 88	.....	123 82	94 93	.....	75 35	331 98
High (Technical),	157 58	305 27	131 37	306 83	154 80	4 90	161 54	1,222 29
Homer Street,	388 36	55 58	164 81	91 92	87 12	2 50	7 74	798 03
Hooker,	123 82	35 72	49 80	145 75	177 19	81 12	28 62	642 02
Howard Street,	.....	35 88	9 23	124 93	156 36	11 00	91 49	428 89
Indian Orchard Grammar,	219 59	112 05	.....	52 55	77 27	.....	26 32	487 78
Indian Orchard Primary,	94 66	35 01	70 64	183 69	89 86	.....	36 69	510 55
Jefferson Avenue,	.....	23 20	61 50	21 98	176 59	67 04	37 47	387 78
Kensington Avenue,	102 91	28 03	16 00	6 26	40 50	14 66	21 23	229 59
Lincoln,	545 77	99 88	330 26	155 27	98 52	20 14	49 40	1,299 24
School Street,	84 08	1 39	.....	76 76	23 48	.....	13 38	199 04
Sixteen Acres,	39 04	.....	.....	6 60	9 44	.....	11 76	66 84
State Street,	149 06	112 42	36 75	68 48	88 43	82 73	92 01	629 88
Strickland,	56 41	11 05	76 00	28 32	56 70	46 33	4 06	278 87
Sumner Avenue,	403 92	89 59	87 75	125 75	24 26	2 45	46 19	779 91
Tapley,	109 94	63 70	49 95	283 72	62 96	62 71	6 37	639 35
Vocational,	77 27	85 27	.....	56 84	35 88	.....	30 07	285 33
White Street,	296 00	264 03	242 37	80 20	74 61	.....	19 70	976 91
William Street,	272 99	102 95	44 44	254 20	95 61	12 70	28 80	811 69
Worthington Street,	319 03	27 83	78 15	170 12	75 52	19 31	2 85	692 81
Rushville Portable,	3,476 34	.....	512 08	.....	.....	.....	.....	3,988 42
Washington Street Portable,	3,540 96	.....	538 08	.....	.....	.....	.....	4,079 04
Totals,	$19,493 83	$3,624 53	$5,235 79	$5,119 51	$4,739 02	$842 64	$1,351 72	$40,407 04
							Amount carried forward,	$40,407 04

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Amount brought forward,	$40,407.04
Emery Street Shop and Storehouse:	
Labor and material on building,	234.73
Miscellaneous tools,	101.80
Miscellaneous labor,	103.34
Carfares,	175.15
Vacations and other lost time,	398.60
Betterment assessment, Kensington Avenue,	376.97
Miscellaneous items and supplies on hand,	763.37
Orders outstanding,	394.00
	$42,955.00
Refunds and rebates,	719.60
Total expenditures for Maintenance,	$42,235.40

Alterations and Permanent Work include the following:

Brightwood School, moving portable house,	$447.48
Chestnut Street, four new rooms made from Assembly Hall,	3,114.35
Dry Bridge School, one-room portable house,	1,724.46
Homer Street School, one new room,	217.62
Lincoln School, one new room,	389.58
Sumner Avenue School, one new room,	271.98
Rushville, two-room portable house,	3,476.34
Washington Street, two-room portable house,	3,540.96

Appropriations:

Administration,	$5,147.56	
Operation,	141,827.58	
Maintenance,	61,801.99	
		$208,777.13

Expenditures:

Administration,	$5,417.88	
Operation,	139,831.42	
Maintenance,	42,235.40	
		187,484.70
Balance unexpended,		$21,292.43

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FIRE PREVENTION.

School.	Fire Escapes.	All Other Work.
Acushnet Avenue,		$224.94
Alden Street,		307.19
Armory Street,		174.09
Barrows,	$4,929.00	416.80
Boston Road,		312.15
Brightwood,		313.79
Buckingham,		149.42
Carew Street,		900.90
Central Street,		359.86
374 Central Street,		655.47
Charles Street,		244.30
Chestnut Street,	6,566.70	297.20
Eastern Avenue,		342.50
East Union Street,	530.00	507.62
Emery Street Shop,		25.00
Forest Park,	6,982.50	328.84
Glenwood,		507.92
Central High,		242.41
Technical High,		208.59
Homer Street,		175.19
Hooker,	683.70	49.72
Howard Street,		44.40
Indian Orchard Grammar,		166.74
Indian Orchard Primary,		290.64
Jefferson Avenue,		197.10
Kensington Avenue,		250.72
Lincoln,		221.89
School Street,	1,961.00	177.69
Sixteen Acres,	318.00	230.13
State Street,		39.72
Strickland,		183.38
Sumner Avenue,		98.20
Tapley,		475.22
Vocational,		286.96
47 Vernon Street,		118.46
White Street,		119.48
William Street,		104.32
Worthington Street,		373.29
Rushville Portable House,		6.00
Washington Street Portable House,		6.00
Sample fire door, etc.,		37.07
	$21,970.90	$10,171.31
Appropriations,		$32,650.00
Expenditures:		
Fire escapes,	$21,970.90	
All other work,	10,171.31	
		32,142.21
Balance unexpended,		$507.79

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MILITIA RIFLE RANGE.

Caretaker,	$320.50
Taxes and water rents,	140.29
Insurance,	30.00
Cleaning pits, putting up and taking down targets, etc.,	206.00
Raising banks, etc.,	823.15
Telephone repairs,	18.52
Repairing and painting house,	107.30
Sundry labor and material,	13.05
Total expenditures,	$1,658.81

Appropriations,	$1,786.00	
Expenditures,	1,658.81	
Balance unexpended,	$127.19	

MUNICIPAL HEATING PLANT.

Salaries, engineers and firemen,	$7,834.68
Coal,	6,878.37
Engine and boiler room supplies and replacements,	545.11
Changes in power line,	670.00
Electric lighting,	215.40
Laundry,	27.00
Miscellaneous supplies and expenses,	143.75
Total expenditures,	$16,314.31

Appropriations,	$16,451.88	
Expenditures,	16,314.31	
Balance unexpended,	$137.57	

Respectfully submitted,

HIRAM L. DORMAN,

Schoolhouse Agent.

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FIRE COMMISSIONERS.

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BOARD OF FIRE COMMISSIONERS.

	Term Expires.
WILLIAM W. TAPLEY, *Chairman*,	1st Monday in May, 1919
CHARLES B. HITCHCOCK, *Secretary*,	1st Monday in May, 1920
*EDWARDS O. DAVIS,	1st Monday in May, 1917
PATRICK H. QUINN,	1st Monday in May, 1918

HENRY MARTENS, Alderman, and Chairman of the Fire Department Committee of the City Council, ex officio.

BOARD OF FIRE CHIEFS.

Chief of the Department,	WILLIAM H. DAGGETT
Deputy Chief,	EVERETT A. KIMBALL
District Chief,	BURTON STEERE
District Chief,	JOHN R. GRAVES

Superintendent of Fire Alarm Telegraph Bureau, SAMUEL L. WHEELER

*Appointed Sept. 27, 1915, to fill the unexpired term of Octave A. LaRiviere, deceased.

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REPORT

OF THE

BOARD OF COMMISSIONERS OF THE FIRE DEPARTMENT

SPRINGFIELD, MASS., December 26, 1916.

To His Honor, the Mayor, and Members of the City Council.

GENTLEMEN:—Now that the work of motorizing the apparatus of this Department has, after a period of ten years, been completed and the highest degree of fire protection consistent with its present-day development has been assured to Springfield, we believe attention should be transferred, and that as soon as possible, to the improvement of certain of the fire stations which, if not absolutely unsanitary, are in their present condition unsuited to continued use.

Not only is the remodeling of these stations, to which attention is called in the accompanying report of the Chief of the Department, necessary for the better housing of the motor apparatus it has taken several years and much of the City's money to accumulate, but we feel that to ask firemen to continue to live under the unsatisfactory, and in some cases unsanitary, conditions existing in these stations would be an act of injustice.

It is inconsistent that a fire department, enjoying the international reputation of the Springfield Fire Department and equipped with the best apparatus, should have any but the best of fire stations. We share the belief of the Chief of the Department that it would be poor economy to install necessary steel and concrete apparatus floors in two or three fire stations at the present time only to be obliged later on to make further changes equally necessary to the proper housing of men at those stations. Therefore we beg to report that it is our intention to submit for your consideration a request that a sum of money sufficient for the remodeling of these buildings be appropriated in addition to the amount requested for maintenance of the Fire Department during the fiscal year ending November 30, 1917.

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We have investigated conditions in these buildings and find them to be as follows:—

The present wood apparatus floors in the Oakland street and Indian Orchard stations must be replaced by steel and concrete floors. There is no alternative for this change.

At present there are not enough rooms in the Oakland street station for all the men quartered there. Some of these men are now obliged to sleep in an open hall, used as a dormitory. The discontinuance of horse service affords space in the forage loft of the building which may be utilized for additional rooms and bath facilities and in the stables, space which may be added to the apparatus floor.

Similar changes are possible at the Indian Orchard station, where firemen are now obliged to sleep two in a room because of a lack of space.

In response to popular demand it will be necessary before long to house a ladder truck in the Armory street station. That will necessitate not only a substantial steel and concrete apparatus floor but the remodeling of at least a portion of the building and we recommend that when these changes become necessary the entire building be remodeled and converted into a modern, sanitary fire station.

We respectfully recommend that land now held by Sarah Cohen, Trustee, located on the westerly side of Main street, at its junction with the proposed extension of Mill street, having a frontage of 164 feet on Main street and a depth of 115 feet, be purchased, together with the buildings thereon situated, for use as the site of a modern, sanitary fire station, replacing the present Mill street fire station which we further recommend be sold, together with the land on which it stands.

Provision for painting and such minor repairs as are necessary on the present Chestnut street station will be included in the budget estimate of this Department for the fiscal year of 1917. We are, however, of the opinion that the relocation of this station is advisable, especially in view of the projected extension of Taylor street.

Realizing the necessity for changes in fire stations as recommended above and realizing also that the efficiency of the Department is likely to be seriously handicapped should this work be overtaken by cold weather through failure to begin it as early as possible, we propse to order the preparation of architects' plans and estimates for the complete remodeling of the Oakland street, Indian Orchard, and Armory street stations. These should be ready so that the work, if ordered, may be begun as early in the Spring as weather conditions will permit. The fact that the Department apparatus must remain out of doors while much of this work is in

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progress will illustrate to you the necessity of its completion before the advent of cold weather next Winter and conditions are likely to be complicated through delay experienced by builders in getting materials.

The continued growth of Springfield makes it plainly the duty of this Commission to select, in so far as possible, sites for the advantageous location of fire stations to be built when sections now rapidly developing shall have reached a point where better fire protection is necessary. In this connection we have in mind the needs of both the City and the Department and may bring the matter to your attention in more detail during the next year.

The Department apparatus, now completely motorized, includes the following:—

Hose wagons,	15
(14 combination hose and chemical; 1 spare.)	
Ladder trucks,	7
(6 aerial, 1 city service. Of these, 3 are electric driven, 3 gasoline-driven, 1 electric tractor-drawn.)	
Pumping engines,	5
(4 gasoline, triple combination; 1 steam, gasoline tractor-drawn.)	
Water tower,	1
(gasoline tractor-drawn.)	
Auxiliary squad cars,	2
Chiefs' cars,	4
(Chief of Department, 1; Deputy Chief, 1; District Chiefs, 2.)	
Fire Alarm service,	2
(1 truck, 1 runabout.)	
Superintendent of Repairs (runabout),	1
Runabouts (spare),	2
Total,	39

In addition to the above the Department has sixteen (16) sleighs available for use with hired horses should Winter weather conditions ever attain a point preventing the use of motor apparatus, a possibility, as shown by the experience of many years, so remote as to be negligible.

There are one hundred eighty-nine (189) men in the service of the Department, classified as follows:—

Chief,	1
Deputy Chief,	1
District Chiefs,	2
Superintendent of Fire Alarm Telegraph Bureau,	1

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Assistant Superintendent of Fire Alarm Telegraph Bureau,	1
Superintendent of Repairs,	1
Captains,	21
Lieutenants,	23
Engineers of pumping engines,	5
Hose and ladder men,	123
Fire Alarm operators and linemen,	5
Callmen,	3
Bookkeeper,	1
Clerk,	1
Total,	189

The recommendation contained in the report of the Chief of the Department relative to so revising the ordinance governing the Fire Department as to permit retirement of members on pension at the age of sixty (60) instead of sixty-five (65) years has received our consideration and we believe such a change would work to the good of the service. Although action by this Commission may await possible changes in the Civil Service rules relating to fire service it is our intention to submit this subject to you in the form of an order for revision of the Fire Department ordinance as proposed.

Fire duty differs essentially from many other lines of municipal service in that it can be successfully performed only by young, active men. This is a fact that should be brought home to every man upon entering the service and is the fact that should not be lost sight of during his period of service. A fireman really worthy of the name does not have to be told when he is "making good" and when he is not. His interest in the service should be paramount to his personal interests and if, having reached the age of sixty, he feels, or the Board of Fire Chiefs by majority vote express the opinion that, possibly by reason of ill health or from other causes, the value of his services to the Fire Department has become decreased, we believe it to be equivalent to an honorable discharge from either the army or navy branch of the National protective service for him to retire on pension.

Inasmuch as this recommendation from the Chief is in line with certain orders and regulations making for improvement of the personnel of the Fire Department which are now receiving the attention of this Commission, we solicit your support of a measure, to be offered later, that shall embody the change in the ordinance as recommended.

Permit us to call your attention to the fact that, as set forth in the

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accompanying report of the Chief, inspections of buildings made during 1916 by Fire Department inspectors exceed those made during 1915 by 2,531. Many of these inspections have been made by the District Chiefs, now numbering but two. We believe these officers are, under present conditions, required to give too much time to work of this nature; time that might better be devoted to the numerous other duties devolving upon them and we renew our recommendation of 1915 that, as a means of more equally distributing duties now assumed by the Chief, the Deputy Chief, and the present District Chiefs, the offices of two additional District Chiefs be created by ordinance.

The need of medical officers permanently attached to this service has been investigated by this Commission and we believe the Department membership is now of such size as to make the employment of such officers not only a measure of protection to the firemen but, in considerable degree, an assurance of continued efficiency due the citizens.

In the days of horse-drawn apparatus a salaried veterinarian was in the employ of the Department for the purpose of caring for the horses, upon which so much then depended. The services of a skilled mechanician are now required to keep the motor apparatus in proper condition. It is logical that the services of experienced medical officers should at all times be available for firemen or citizens injured or overcome at fires.

Therefore, we respectfully recommend that provision be made by ordinance for the permanent employment of one or more physicians, residents of Springfield, who shall, serving at nominal salaries, be attached to the Fire Department service and respond to alarms, for the purpose of giving such emergency aid to firemen and others as may be necessary.

Inspections of school buildings, public and private, throughout the city, which have regularly been made by members of the Department during the past year have had the effect of entirely doing away with those accumulations of waste paper and other materials in these buildings, which in the past have constituted a menace to the safety of Springfield's school children. We regret that the recommendation contained in the report of this Commission for the year 1915 relative to placing a fire alarm signal box either upon the exterior or interior walls of each building in the city used for school purposes has not been put into effect and we trust this recommendation may be adopted and become effective during 1917.

In conclusion we wish to impress upon you the fact that no recommendation contained in this report has been advanced except after

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careful consideration and to add that we believe failure to present each or all would amount to neglect of duty on our part toward yourselves and the public.

Respectfully submitted,

WILLIAM W. TAPLEY,
CHARLES B. HITCHCOCK,
PATRICK H. QUINN,
EDWARDS O. DAVIS,
ALBERT B. FRANKLIN, JR.,
Board of Fire Commissioners.

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REPORT

OF THE

CHIEF OF THE DEPARTMENT

SPRINGFIELD, MASS., December 19, 1916.

To the Honorable Board of Commissioners of the Fire Department.

GENTLEMEN:—The complete motorization of the department apparatus, finally accomplished during the fiscal year ended November 30, must prove to you, as it does to the writer, a source of satisfaction and I desire at this time to thank not only you but the others, who, as previous members of the Board of Commissioners of the Fire Department, have worked with this end in view.

Aside from the possibility that the boiler of the present tractor-drawn Engine No. 4 may not pass the next State test it is now unlikely that it will be necessary to purchase new apparatus for at least a year. Although this engine was purchased sixteen years ago I am hopeful that its boiler will successfully pass the test. Should it fail, however, it will be necessary to purchase one small size motor pump to be located at the Oakland street fire station to which the tractor-drawn engine is to be transferred from the Walnut street station.

Changes in buildings, compelled by arrival of the new apparatus, raise the question as to whether it is or is not advisable, when providing for the housing of apparatus, to carry the work further and permanently remodel certain of the fire stations in such manner that both men and apparatus may be properly housed for many years to come. In my opinion it would serve the purposes of economy if such complete and permanent changes were made and I respectfully recommend:—

That, at the Oakland street station, where the present wood floor must be replaced with a steel and concrete floor for the accommodation of heavy apparatus, the entire building be remodeled in such manner as also to furnish additional rooms and bath facilities for firemen.

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That, at the Indian Orchard station, where the present wood floor must be replaced with a steel and concrete floor, the building also be remodeled so as to furnish additional rooms and baths.

That, at the Armory street station, where, in the near future, it will be necessary to install a ladder truck, the building, at that time, be remodeled as recommended for the Oakland and Indian Orchard stations.

That, the present Mill street fire station be sold and that on some other suitable site in that vicinity a new, sanitary fire station be erected.

That, if the present Mill street fire station be not sold, the building be remodeled in such manner as to provide suitable and sanitary housing of the fire companies quartered there.

That, if the present Chestnut street fire station is to be continued in use, the exterior of the building be painted and the interior varnished.

That, if it is deemed advisable by your Honorable Board to remodel and repair the buildings specified above, immediate steps be taken to secure architects' plans and specifications, for the reason that, as the apparatus must remain out of doors while the work is in progress, great inconvenience would be experienced should cold weather set in before it were finished.

In addition I respectfully recommend:—

That, as a means of improving the personnel of the Department, steps be taken to secure a revision of the ordinance governing the Fire Department, so as to enable the retirement of members on pension at the age of sixty (60) instead of sixty-five (65) years, as at present, and to make such retirement possible either on such members' personal petition or on that of the Chief of the Department, provided, however, that should the latter course be adopted it shall be only following a majority vote by the Board of Fire Chiefs authorizing such action.

It is my belief that revision of the ordinance as recommended is in line with certain changes in the methods of entrance examination for this service now receiving consideration by the Civil Service Commission and the combined effect of action by the Commission and the City would be to greatly improve Springfield's fire service by restricting membership in this Department to comparatively young, active men, best qualified for the work. The Civil Service Commission is plainly in earnest in its endeavor to improve the fire service throughout the State and I trust you may see your way clear to aid in this undertaking by securing, if possible, revision of the Fire Department ordinance, as recommended.

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The number of alarms responded to by the Department during the fiscal year was 911. This represents a decrease of twenty-seven (27) from the total of 1915. There has, however, been an increase of false alarms, the total for 1916 being eighty-seven (87) as against sixty-three (63) during 1915. The total number of bell alarms was 308; telephone, 465; still, 116; thermostat, 9; A. D. T., 13. The total number of buildings inspected by Department inspectors during the year was 15,104. This is an increase of 2,531 over the number inspected during 1915.

The total fire loss during the fiscal year was $177,946.39. Of this amount $170,646.47 was covered by insurance, the balance, $7,299.92, being uninsured.

Herewith, and forming parts of this report, are the usual tabulated statistics relative to alarms, valuation, insurance, loss, causes of fires and alarms, inventory of land, buildings, equipment, etc.

The Department appropriation for 1916 was $316,939.25. The total expenditures were $319,326.30. I regret that under the present system of accounting I cannot present them to you in such detail as was previously possible.

Respectfully submitted,

W. H. DAGGETT,
Chief.

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REPORT

OF THE

SUPERINTENDENT OF THE FIRE ALARM TELEGRAPH BUREAU

SPRINGFIELD, MASS., December 19, 1916.

To the Honorable Board of Commissioners of the Fire Department.

GENTLEMEN:—This branch of the Fire Department, I am pleased to state, is in first class condition.

One thousand battery plates, having been in service five years, have been replaced with new ones. Nine new street boxes have been installed in various sections of the city and twelve of the old style boxes, which had been in service over thirty years, have been remodeled to the up-to-date, successive type. We have at present in service a few over one hundred boxes inferior to those now being manufactured and I urgently recommend that at least one third of these be replaced during the coming year.

All of our overhead wires in the section designated for underground work have been placed underground and the old wires removed. In placing our cables underground I have, as far as possible, anticipated the increased need of extra wire to supply service to future fire stations, notably at East Springfield and east of Winchester Square. In case a new fire station is built to take the place of the present Mill street station it will necessitate the outlay of a few hundred dollars to give it the proper service.

At least six new locations of street boxes should be added each year.

Respectfully submitted,

S. L. WHEELER,
Superintendent.

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INVENTORY OF THE FIRE DEPARTMENT.

DECEMBER 1, 1916.

	Land.	Buildings.	Equipment.	Total.
Armory street,	$1,200.00	$16,000.00	$13,436.00	$30,636.00
Boston road,		200.00	300.00	500.00
Chestnut street,	10,000.00	14,500.00	12,700.00	37,200.00
Court street,	35,000.00	101,500.00	46,600.00	183,100.00
Indian Orchard,	1,200.00	16,000.00	17,750.00	34,950.00
Margaret street,	2,000.00	25,500.00	6,000.00	33,500.00
Mill street,	2,000.00	16,500.00	23,150.00	41,650.00
Mill River lane,	300.00	2,000.00	1,300.00	3,600.00
North street,	4,000.00	58,000.00	15,650.00	77,650.00
North Main street,	3,900.00	30,000.00	18,500.00	52,400.00
Oakland street,	2,000.00	11,000.00	22,500.00	35,500.00
Pine street,	2,500.00	35,000.00	18,000.00	55,500.00
Plainfield street,	1,200.00	10,500.00	5,814.00	17,514.00
Walnut street,	3,500.00	32,500.00	20,250.00	56,250.00
Winchester Square,	7,000.00	40,000.00	27,750.00	74,750.00
Fire Alarm service,			121,000.00	121,000.00
	$75,800.00	$409,200.00	$370,700.00	$855,700.00

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STATEMENT OF
ALARMS, VALUATION, INSURANCE AND LOSS
Involved in Fires of the Fiscal Year Ended Nov. 30, 1916.

	Alarms						Value	Insurance	Loss				
	Bell	Telephone	Still	Thermostat	A.D.T.	Total			Insured	Uninsured	Total	In Building Where Fire Originated	By Exposure
Dec.	42	33	5			80	$261,450.00	$221,500.00	$10,685.50	$390.00	$11,075.50	$11,075.50	
Jan.	30	22	9	1		62	2,352,070.00	2,121,841.50	17,872.25	510.00	18,382.25	18,382.25	
Feb.	19	26	4	2	2	53	2,748,100.00	2,333,875.00	15,320.34	290.00	15,610.34	15,610.34	
March	22	26	14		1	63	131,935.00	110,369.90	23,558.04	155.00	23,718.04	23,664.69	$53.35
April	19	56	8			83	390,140.00	354,140.00	11,047.97	157.60	11,205.57	10,698.07	507.50
May	26	64	9		1	100	1,183,950.00	958,982.00	8,375.02	2,065.00	10,440.02	10,430.02	10.00
June	12	24	8	1	2	47	538,450.00	472,614.94	13,386.05	135.00	13,521.05	13,521.05	
July	29	24	7	1	1	62	47,920.00	40,850.00	2,701.47	75.32	2,776.79	2,776.79	
Aug.	12	33	9	1		55	155,500.00	88,000.00	4,757.33	1,140.00	5,897.33	5,897.33	
Sept.	21	39	8		2	70	208,175.00	176,100.00	15,224.06	405.00	15,629.06	14,192.85	1,436.21
Oct.	32	53	22	2	2	111	1,454,750.00	1,354,047.08	19,310.07	445.00	19,755.07	19,430.07	325.00
Nov.	44	65	13	1	2	125	732,410.60	588,694.72	28,408.37	1,527.00	29,935.37	29,593.37	342.00
	308	465	116	9	13	911	$10,204,850.60	$8,821,015.14	$170,646.47	$7,299.92	$177,946.39	$175,272.33	$2,674.06

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CLASSIFICATION OF LOSS

INVOLVED IN FIRES OF THE FISCAL YEAR ENDED NOV. 30, 1916.

	*$10 or Less.	Between $10 and $50.	Between $50 and $100.	Between $100 and $1,000.	Between $1,000 and $5,000.	Between $5,000 and $10,000.	Between $10,000 and $20,000.	Total Alarms.
Dec.	61	3	1	13	2			80
Jan.	37	2	4	14	5			62
Feb.	24	9	7	9	4			53
March	41	3	2	11	6			63
April	65	3	2	9	4			83
May	74	5	6	11	4			100
June	37	3	2	3	1		1	47
July	52	1	3	5	1			62
Aug.	41	4	4	4	2			55
Sept.	49	4	3	11	2	1		70
Oct.	94	4	1	7	4	1		111
Nov.	92	7	7	13	5		1	125
Total	667	48	42	110	40	2	2	911

*Includes false and needless alarms answered.

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COMPARATIVE STATEMENT OF LOSS.

*Year	Alarms	Property Loss	Per Capita Loss
1871	21	$199,317.00	$7.46
1872	22	106,425.00	3.99
1873	48	191,107.00	7.16
1874	38	285,822.02	10.70
1875	57	476,961.45	15.36
1876	53	120,824.00	3.89
1877	32	74,071.00	2.39
1878	39	49,552.00	1.60
1879	33	36,706.70	1.18
1880	27	8,661.35	.26
1881	61	92,352.82	2.77
1882	73	60,232.06	1.81
1883	46	34,969.11	1.05
1884	54	30,755.34	.92
1885	48	39,241.91	1.04
1886	61	33,584.00	.81
1887	86	64,930.29	1.73
1888	79	177,577.19	4.73
1889	79	52,085.19	1.39
1890	92	33,864.99	.77
1891	141	201,126.00	4.55
1892	140	125,243.36	2.83
1893	147	397,531.03	9.00
1894	125	57,732.41	1.31
1895	128	43,311.74	.84
1896	141	57,206.60	1.11
1897	157	55,460.89	1.08
1898	171	235,981.79	4.58
1899	213	94,694.02	1.84
1900	222	62,157.70	1.00
1901	236	96,409.25	1.55
1902	248	149,931.33	2.42
1903	311	30,316.69	.49
1904	385	68,332.86	1.10
1905	424	208,451.58	2.83
1906	403	105,771.28	1.39
1907	498	535,549.74	7.05
1908	530	88,690.38	1.17
1909	675	75,701.81	1.00
1910	710	133,329.47	1.50
1911	729	397,714.08	4.47
1912	829	166,210.66	1.87
1913	1,033	264,165.72	2.97
1914	993	328,664.94	3.70
1915	938	207,506.20	2.02
1916	911	177,946.39	1.73

*Fiscal year; December 1 to November 30 inclusive.

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ALARMS ANSWERED

Engine Co. No. 1	108
Engine Co. No. 2	180
Engine Co. No. 3	102
Engine Co. No. 4	111
Engine Co. No. 5	49
Engine Co. No. 6	103
Engine Co. No. 8	106
Engine Co. No. 9	73
Hose Co. No. 7	205
Hose Co. No. 10	158
Hose Co. No. 11	58
Hose Co. No. 12	102
Hose Co. No. 13	107
Truck Co. No. 1	107
Truck Co. No. 3	59
Truck Co. No. 6	79
Truck Co. No. 8	100
Truck Co. No. 10	150
Truck Co. No. 13	74
Squad A	311
Squad B	358

CAUSES OF FIRES AND ALARMS

Accident with lamp,	2
Alcohol lamp and curling iron,	1
Alcohol stove overturned,	1
Back draft (smoke),	4
Back fire,	16
Blower pipe (dirty),	1
Boiling oil,	1
Bonfires,	6
Broken gas fixture,	1
Broken gas main and lantern,	1
Broken sprinkler head,	1
Burning grease,	5
Burning meat,	3
Burning oil,	1
Brush, forest, grass, leaves,	131
Candle,	2
Carelessness,	2
Careless smoking,	40

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Careless with candle,	5
Careless with gasoline,	6
Careless with matches,	13
Careless with oily rags,	1
Charcoal,	1
Children and matches,	20
Chimney fires,	42
Clothing near stove,	1
Coal gas,	1
Defective chimney,	2
Defective fireplace,	1
Defective furnace,	1
Defective gas fixture (pipe),	1
Defective insulation,	1
Defective stovepipe,	2
Defective wiring,	2
Dirty furnace,	1
Dirty stovepipe,	2
Dumping grounds,	34
Electric flatiron,	3
Escaping gas,	2
Exploding boiler (heater),	2
False alarms,	87
Fireworks,	1
Friction,	1
Fumigating,	1
Gas heater (stove) (plate),	8
Gas jet,	2
Gas jet and curtain,	3
Gasoline,	20
Gasoline leak,	2
Gasoline torch,	1
Grease in flue,	1
Heat from boiler,	1
Heat from kiln,	1
Heat from oven,	1
Hot ashes,	6
Hot coals,	1
Hot metal,	1
Hot tar,	5
Incendiary,	1
Leak in gas pipe,	1
Lightning,	1
Light torch,	1
Lime,	1
Malicious mischief,	2
Motion picture films,	2
Needless alarms,	69
Oil heater (stove),	3
Oil in tempering room,	1
Oil lamp,	1
Overheated engine,	1
Overheated furnace,	2
Overheated motor,	1
Overheated smoke pipe,	1
Overheated steam pipes,	1

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Overheated stove,	8
Overheated stovepipe,	3
Overheated ventilator,	2
Plumber's torch,	1
Painter's rags,	1
Rats and matches,	1
Railroad ties,	1
Rekindling of former fire,	6
Rubbish chute,	1
Rubbish in barrels,	10
Rubbish in basement,	9
Rubbish, miscellaneous,	21
Sawdust,	4
Shavings, steel,	1
Short circuit,	1
Smoke (unusual),	3
Smoke from electric fan,	1
Sparks from chimney (stack),	6
Sparks from locomotive,	2
Sparks from picker,	9
Sparks from steam roller,	1
Sparks from stove,	3
Spark in bag of charcoal,	1
Spontaneous combustion,	4
Stove cloths (rags),	3
Stove near automobile,	1
Suspicious,	2
Thawing water pipes,	8
Trolly cars,	29
Unknown,	172
Waste paper on gas stove,	1
Total,	911

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POLICE DEPARTMENT

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REPORT

OF THE

BOARD OF POLICE COMMISSIONERS

To His Honor, the Mayor, and the City Council of the City of Springfield.

GENTLEMEN:—The Police Commission submits to you herewith the annual report of the department for the year ending November 30, 1916.

At the beginning of the year the Commission was composed of James Milton Gill, Charles F. Spellman, and Daniel J. Brown, M.D. In April the Mayor appointed Joseph G. Roy as Commissioner for a term of three years, to take effect at noon on the first Monday in May, at which time the term of James M. Gill expired.

INCIDENTS OF THE YEAR.

The work of the department during the year has been of an effective character, notably in the suppression of disorder. There has been no serious crime in the city, except in two instances. On one occasion the organized shovelers in this city went on a strike. They paraded the streets daily and while they were well behaved the police did not molest them, but on April 26 they attempted violence in two different points in the city, attacking workmen and the police. The police repulsed them, acting in a prompt and effective manner, and the strikers returned to their peaceful methods and the strike was speedily settled.

There was also trouble among the Assyrians in this city, engendered by religious differences, in which two men were shot and killed. The murderers were almost immediately arrested and their cases are now before our Superior Court.

During the year a large number of automobiles were stolen, this being common in other cities as well as Springfield. Eleven cars were stolen and not recovered and sixty-eight others were driven away and afterwards found in this city or recovered in other cities or towns and returned to their owners.

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There has been a marked decrease in the number of women arrested and also men.

Offenses committed by minors and juveniles have caused the police considerable work, notably in the way they trespass upon neighboring property, damaging new buildings and buildings in the process of construction.

The most gratifying condition in this city is the comparatively few cases of illegal liquor selling, prostitution, and gambling. All these offenses have been reduced to a minimum.

The discipline among the members of the department has been good, generally speaking. There have been a few instances where men have been brought before the Commission on charges and proper penalties were imposed.

EQUIPMENT AND BUILDINGS.

The department is very well equipped with men and apparatus, except that the automobiles wear out naturally and have to be replaced from time to time.

During the year an innovation was introduced in the department by the Police Commission, which has worked out admirably, that is the purchasing of two Ford automobiles to patrol the residential section of the city in place of the seven horses which were sold on June 1. In November a third one was added. They are all doing very effective work and can be utilized in many ways besides patrolling the residential districts. In this connection it is well to know that other cities are adopting this plan. We wish to make a comparison of the cost of maintaining this unit as compared with the horses. For the six months that the patrol cars have been in service, the upkeep has amounted to $946.05. This includes gasoline, oil, tires, and repairs. For the same period last year the cost of maintaining the horses amounted to $1,490. This is a saving to the city of practically $650 for six months. These two cars have each covered a distance of 11,000 miles, which is probably four times, if not more, than the distance the horses would cover during the same period. This demonstrates a more frequent service, consequently a better service, at practically half the cost of maintaining the horses.

The Police Headquarters Building is in good condition, except that the corridors and cells will need painting next year.

The Police Commission is convinced that the department can be operated from one central station and so does not propose to recommend any sub-stations being built as has been discussed in the past. By adhering to this plan the city would be saved many thousands of dollars.

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However, owing to the crowded condition of the Police Court Room and the offices attached thereto, the building ought to be enlarged by the addition of another story over the garage. This would not only provide for the Police Court and its offices, but would give the department much needed room, and we so recommend.

RECOMMENDATIONS.

We recommend that the Police Ordinance be so amended as to provide for another captain, so that the three uniformed units of the force would each be in charge of a proper official, also be given authority to appoint additional sergeants to supervise the work of the patrolmen, thus insuring better service. When the present seven sergeants were appointed, there were sixty-seven patrolmen in the department. To-day there are one hundred and fifty-nine. It would seem that no argument was necessary to show the need of additional sergeants. In most cities there is a sergeant to every thirteen men.

We contemplate in the near future to make some retirements in the department for the good of the service and the Massachusetts Civil Service Commission will on December 21 and 22 give an examination to the eligible members of the department for the various grades. If there were no retirements an eligible list would still be essential in cases of vacancies occurring.

We further recommend that sufficient funds be provided in our annual appropriation so that we may turn in our two Ford patrol cars for new ones, thus insuring good service. We also desire to get two new automobiles to replace the present ones, one for use in emergencies, answering calls to the residential districts, for the use of the inspectors and for the transportation of women and children. By doing this, it will maintain the cars in good condition and we can get a better allowance for the old cars at this time.

The report of the Chief of Police to the Commission is attached hereto and is submitted as a part of this report.

In conclusion, we desire to thank His Honor, the Mayor, and your Honorable Body for the co-operation and support given us during the year.

Respectfully submitted,

DANIEL J. BROWN, M.D., *Chairman,*
CHAS. F. SPELLMAN,
J. G. ROY,
Police Commission.

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ANNUAL REPORT

OF

CHIEF OF POLICE

To the Police Commission of the City of Springfield.

GENTLEMEN:—I herewith submit the Annual Report of the Chief of Police for the year ending November 30, 1916.

Respectfully submitted,

WILLIAM J. QUILTY,

Chief of Police.

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CITY OF SPRINGFIELD, MASSACHUSETTS.

1916.

Population, ... 103,000
Area, ... 38.51 square miles
Public streets, ... 182 miles

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The following is a schedule and valuation of the property in charge of the Police Department.

Land,	$63,433.00
Buildings,	118,600.00
Signal system,	15,000.00
Auto equipment,	8,000.00
Office equipment,	3,500.00
Other equipment,	8,000.00
Total,	$216,533.00

APPROPRIATIONS, EXPENDITURES.

Appropriation,		$283,883.12
Expenditures,	$276,850.15	
Balance,	7,032.97	
		$283,883.12

RECEIPTS.

Fines,	$8,356.67
All others,	1,467.32

COMPOSITION OF FORCE.

Chief,	1
Deputy Chief,	1
Chief Inspector,	1
Captains,	2
Inspectors,	10
Lieutenants,	2
Sergeants,	7
Patrolmen, Grade A,	147
Patrolmen, Grade B,	2
Patrolmen, Grade C,	9
Reservemen,	30
Department Clerk,	1
Clerks,	2
Chauffeurs,	6
Matrons,	2
Telephone Operators,	2
Superintendent of Signal System,	1
Drill Master,	1
Janitors,	3
Janitress,	1
Retired Inspector,	1
Retired Patrolmen,	7

NUMBER OF LICENSES ISSUED AND FEES COLLECTED DURING THE YEAR ENDING NOVEMBER 30, 1916.

30 auctioneers,	$60.00
9 bowling alleys,	18.00
348 express,	348.00

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19	intelligence offices,	$38.00
6	pawnbrokers,	300.00
68	pool rooms	938.00
183	ragpickers,	564.00
51	second hand,	102.00
655	taxicabs,	655.00
124	fruit and vegetable peddlers,	3,100.00
	Total,	$6,123.00

TOTAL NUMBER OF DAYS LOST BY SICKNESS, ABSENCE, AND VACATION BY MEMBERS OF THE DEPARTMENT.

Total number on special duty,	1,967
Total number on sick list,	1,316
Total number on vacation,	2,065
Total number on leave of absence,	453
Total number days off,	3,587

MISCELLANEOUS DUTIES.

Accidents reported,	1,109
Buildings opened and secured,	1,806
Defective streets reported,	42
Sidewalks reported defective,	133
Disturbances suppressed,	13
Electric lights out,	2,233
Fire alarms pulled in,	6
Fire alarms reported,	248
Fires extinguished by officers,	2
Intoxicated persons sent home,	6
Lost children restored,	68

ACCIDENTS REPORTED BY POLICE OFFICERS.

For the Year Ending November 30, 1916.

Asphyxiation,	5
Automobiles,	716
Bicycles,	29
Dropping dead,	8
Drowning,	4
Electrocution,	2
Elevators,	3
Explosions,	3
Fainting,	9
Falls,	130
Falling objects,	8
Fires,	1
Fits,	10
Highways, defects in,	5
Machinery,	1
Motorcycles,	46
Runaway horses,	27

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Steam railroads,	14
Suicide,	4
Teams,	46
Trolley cars,	129
Total,	1,200

An inspection of the records of these accidents shows that in 96 cases the pedestrian was to blame.

PATROL AND AMBULANCE REPORT.

	MODEL R.			MODEL GR.		
	Regular.	Emergency.	Fire.	Regular.	Emergency.	Fire.
December,	139	5	8	3	0	0
January,	74	1	4	11	1	4
February,	71	1	3	1	1	0
March,	137	5	2	4	0	0
April,	171	9	4	3	1	0
May,	174	2	1	2	1	0
June,	157	4	1	8	0	0
July,	209	9	2	115	10	3
August,	42	9	0	145	15	0
September,	23	0	0	21	0	0
October,	99	3	3	14	0	1
November,	189	4	11	11	1	0
	1,485	52	39	338	30	8
	Total runs,		1,576	Total runs,		376

	WHITE.			TOURING CAR.		
	Regular.	Emergency	Fire.	Regular.	Emergency.	Fire.
December,	190	19	5	173	2	0
January,	204	14	11	175	4	0
February,	209	11	7	158	5	0
March,	167	15	4	137	3	0
April,	208	4	2	236	6	2
May,	205	20	8	203	3	0
June,	114	12	3	215	7	2
July,	82	9	3	164	2	0
August,	310	9	5	80	4	0
September,	354	15	6	162	6	0
October,	373	10	16	175	1	0
November,	209	23	12	197	2	2
	2,625	161	82	2,075	45	6
	Total runs,		2,868	Total runs,		2,126

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Number of miles run during the year, Model R,	3,274
Number of miles run during the year, Model GR,	1,047
Number of miles run during the year, White,	6,272
Number of miles run during the year, Touring Car,	6,363
Number of miles run during the year, all autos,	16,956

CHARGES ON WHICH ARRESTS WERE MADE.

CRIMES AGAINST THE PERSON.

	1912	1913	1914	1915	1916
Abduction,	1	0	0	0	1
Assault and battery,	128	156	168	152	152
Assault, felonious,	0	0	0	1	0
Assault on officer,	4	18	29	26	36
Assault with deadly weapon,	7	21	19	18	14
Assault with intent to kill,	0	0	1	3	2
Assault, indecent,	4	0	4	2	1
Assault and robbery,	2	7	0	1	7
Assault, attempt to rob,	1	1	7	0	0
Highway robbery,	0	2	0	0	0
Manslaughter,	0	1	1	3	2
Murder,	2	1	7	2	1
Murder, attempt,	1	1	0	0	0
Rape,	2	1	3	3	1
Rape, attempt,	0	4	0	1	2
Robbery,	1	6	1	2	1
Threatening,	0	0	0	1	5
	153	219	240	215	225

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CRIMES AGAINST PROPERTY.

	1912	1913	1914	1915	1916
Arson,	1	1	0	0	0
Breaking and entering,	29	35	42	26	29
Breaking and entering, attempt,	1	2	0	3	0
Breaking glass,	4	11	3	5	9
Breaking into a letter box,	0	0	0	0	1
Burning a building,	0	1	0	2	0
Concealing leased property,	0	0	2	0	6
Defrauding electric light company,	0	0	0	0	2
Defrauding hotel,	0	0	0	0	2
Defrauding an insurance company,	0	0	0	1	0
Destroying property,	7	4	23	1	5
Destroying railroad property,	0	6	0	0	0
Driving away an auto,	0	13	3	21	7
Driving away a team,	6	2	6	2	0
Evading railroad fare,	4	5	4	4	2
Extortion,	0	2	2	1	0
Fortune telling,	0	0	0	4	2
Injury to real estate,	1	0	0	0	0
Interfering with railroad signal,	1	0	0	0	0
Larceny,	235	262	296	250	203
Larceny, attempt,	2	0	5	6	1
Larceny from common carrier,	8	3	7	3	3
Larceny from the person,	8	8	8	2	2
Larceny from the person, attempt,	0	0	0	1	0
Larceny in a building,	1	12	6	12	3
Malicious mischief,	10	12	10	7	3
Mortgaging leased property,	0	0	0	1	0
Obtaining goods under false pretenses,	0	0	0	0	1
Placing explosives in a building,	0	0	1	0	0
Placing explosives on street car tracks,	0	0	1	0	0
Receiving stolen goods,	4	7	5	10	8
Removing and concealing personal property,	0	0	1	0	0
Retaining city library books,	0	0	0	0	1
Selling leased property,	3	1	4	0	2
Selling mortgaged property,	0	0	0	1	0
Setting fire to a building,	2	0	0	0	0
Taking and using,	2	0	2	0	0
Throwing missiles at autos,	0	0	0	0	1
Throwing missiles at railroad car,	0	1	0	0	0
Trespass,	56	95	38	22	23
Trespass of fowls,	0	2	0	0	0
Uttering worthless checks,	2	0	0	1	2
Uttering worthless checks, attempt,	0	0	1	0	0
	387	485	470	386	318

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CRIMES AGAINST THE PUBLIC ORDER.

	1912	1913	1914	1915	1916
Abandoning child,	1	0	0	0	1
Abandonment,	0	0	8	3	14
Abortion,	0	0	1	0	0
Abortion, accessory to,	0	0	1	0	0
Accosting a female,	0	0	0	1	0
Adultery,	5	2	4	9	2
Attempt to bribe,	1	0	1	0	0
Bastardy,	10	12	14	26	18
Being present at illegal game,	8	22	9	22	0
Being present where lottery is promoted,	0	0	46	12	26
Being present at opium resort,	11	13	7	0	0
Bench warrant,	0	0	0	1	1
Bigamy,	0	0	1	0	0
Breach of the peace,	168	179	213	185	184
Buying junk from minors,	0	0	0	0	1
Carrying concealed weapon,	27	42	42	45	45
Common brawler,	0	0	0	0	1
Common night walker,	8	4	21	9	19
Concealing birth of illegal child,	0	0	1	0	0
Conducting detective bureau without license,	1	0	0	0	0
Contempt of court,	0	0	1	0	2
Crime against chastity,	0	6	9	13	6
Cruelty to animals,	1	3	2	2	4
Delinquents,	43	59	98	79	59
Deserters,	2	0	1	4	3
Disorderly conduct,	6	3	17	28	16
Disorderly house keeping,	4	0	0	8	4
Distributing obscene literature,	1	0	0	1	0
Disturbing a meeting,	3	8	6	8	19
Disturbance on street car,	0	3	2	2	7
Driving without lights,	0	0	0	2	0
Drunkenness,	2,523	2,721	2,499	2,047	2,195
Enticing female to prostitution,	0	0	1	0	0
Escaped lunatic,	0	1	0	2	1
Escaped prisoner,	0	2	1	0	0
Forgery,	1	1	1	0	2
Fornication,	66	36	63	34	22
Fugitive from justice,	77	104	92	85	108
Gambling,	43	48	46	86	51
Gaming on Lord's day,	0	0	31	14	12
Habitual truant,	0	1	5	0	1
Having obscene literature,	0	0	0	1	0
Having obscene pictures,	0	0	1	0	0
Illegal notice posting,	1	0	0	0	0
Illegal practice of medicine,	3	0	0	0	0
Impersonating an officer,	0	5	1	0	0
Incest,	0	0	0	1	1
Indecent exposure,	4	9	7	10	6
Insane,	14	20	37	55	44

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	1912	1913	1914	1915	1916
Interfering with an officer,	0	2	0	0	0
Itinerant vendor,	0	0	1	2	1
Keeping gambling house,	1	1	2	6	2
Keeping house of ill-fame,	0	0	2	6	0
Keeping unlicensed dog,	16	19	14	35	25
Lewd and lascivious,	0	0	0	11	0
Lewd and lascivious cohabitation,	10	29	26	7	15
Making false report of birth of child,	0	0	1	0	0
Mutilating U. S. flag,	0	0	0	0	1
Neglecting to report birth of illegal child,	0	0	1	0	0
Non-payment of fine,	0	14	3	0	0
Non-support,	58	59	104	107	102
Not having lights on vehicle,	0	0	14	0	14
Operating auto under influence of liquor,	0	0	2	16	4
Operating poolroom without license,	0	0	1	0	0
Peddling without a license,	8	18	13	6	5
Perjury,	0	0	3	2	0
Possession of lottery tickets,	0	0	1	0	0
Profane and indecent language,	20	50	32	25	24
Promoting a lottery,	2	3	8	4	1
Promoting a lottery, assisting in,	0	0	1	0	0
Reckless driving,	0	3	1	2	4
Ringing false fire alarm,	1	4	1	0	2
Runaways,	47	62	71	96	69
Selling instrument to prevent conception,	0	0	0	1	0
Sodomy,	0	0	0	0	1
Stubborn and disobedient,	7	12	8	10	24
Surrendered by bondsman,	3	0	1	1	0
Surrendered by probation officer,	0	0	2	0	0
Suspicion,	273	302	273	206	256
Unnatural act,	1	2	1	5	6
Unnatural act, attempt,	0	0	1	0	0
Vagrancy,	107	130	153	150	100
Violating alien labor law,	0	0	0	2	0
Violating bottle law,	0	0	0	7	0
Violating bicycle law,	0	0	0	2	0
Violating building law,	0	0	8	0	0
Violating city ordinances,	92	72	95	68	56
Violating corporation law,	0	0	1	0	0
Violating curfew law,	3	0	0	0	0
Violating drug law,	1	7	10	17	12
Violating employment law,	0	0	0	5	6
Violating fire law,	2	0	0	0	0
Violating food law,	1	16	19	3	0
Violating fowl law,	0	0	0	1	0
Violating game law,	2	1	0	0	0
Violating garbage law,	0	0	1	3	0
Violating health law,	4	4	2	4	0
Violating insurance law,	2	0	1	0	0
Violating intelligence office law,	2	6	8	0	0
Violating labor law,	0	1	1	1	0
Violating license law,	0	1	0	0	1

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	1912	1913	1914	1915	1916
Violating liquor law,	63	53	55	61	66
Violating Lord's day,	23	20	12	8	6
Violating lottery law,	0	0	0	3	0
Violating marriage law,	0	0	0	0	1
Violating match law,	0	0	0	4	0
Violating medical registration,	0	0	6	3	0
Violating milk law,	0	1	2	1	0
Violating motor law,	68	62	86	96	215
Violating opium law,	0	1	9	0	0
Violating park ordinance,	8	9	6	6	4
Violating probation,	1	6	34	86	109
Violating plumbers' law,	2	3	3	0	0
Violating poolroom law,	0	0	0	1	0
Violating quarantine law,	0	0	4	0	0
Violating school law,	0	0	0	2	1
Violating smoke law,	10	7	1	0	0
Violating state boiler inspection law,	0	0	0	3	1
Violating a regulation of State Fire law,	2	0	3	0	0
Violating traffic law,	38	39	35	32	25
Violating United States postal law,	1	0	0	0	1
Violating vehicle law,	0	0	1	0	0
Violating weights and measures law,	16	0	1	3	6
Violating white slave law,	0	2	0	0	0
Walking railroad tracks,	62	58	69	37	37
Witnesses, held by Court,	0	0	5	2	4
	3,989	4,383	4,509	3,954	4,082

RECAPITULATION.

	1912	1913	1914	1915	1916
Total crimes against the person,	153	219	240	215	225
Total crimes against property,	387	485	470	386	318
Total crimes against the public order,	2,989	4,383	4,509	3,954	4,082
	4,529	5,087	5,219	4,555	4,625

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NATIVITY OF PRISONERS.

	Males.	Females.		Males.	Females.
Africa,	1	0	Holland,	2	0
Arabia,	1	0	Hungary,	2	0
Armenia,	3	0	India,	3	0
Australia,	4	0	Ireland,	403	36
Austria,	115	13	Italy,	180	7
Belgium,	6	0	Norway,	9	0
Bulgaria,	1	0	Poland,	26	1
Canada,	213	18	Portugal,	6	0
Cape Verde Islands,	1	0	Russia,	330	8
China,	56	0	Scotland,	73	3
Corea,	1	0	Spain,	1	0
Cuba,	3	0	Sweden,	60	1
Denmark,	4	0	Syria,	36	2
England,	59	4	Turkey,	15	0
Finland,	8	0	United States,	2,431	165
France,	2	0	Unknown,	201	27
Germany,	46	4	Wales,	2	0
Greece,	26	1	West Indies,	3	1
Greenland,	1	0			

Total, Males 4,334; Females, 291.

Total, 4,625.

CLASSIFICATION OF AGES OF PRISONERS.

Ages,	10–20	21–30	31–40	41–50	Over 50	Unknown	Total
Males,	415	1,285	1,044	837	623	130	4,334
Females,	35	83	64	65	29	15	291
Total arrests,							4,625

RECORD OF JUVENILE CASES.

BOYS.

Assault and battery,	10	Neglected child,	45
Attempt to break and enter in the night time,	1	Ringing false alarm of fire,	1
Breaking and entering,	17	Stubbornness,	9
Disturbing assembly,	2	Taking auto without authority,	4
Disturbing library,	2	Throwing missiles at railroad cars,	3
Disturbing school,	2	Unnatural act,	1
Injuring books in library,	1	Vagrancy,	2
Injuring personal property,	8	Violation of automobile law,	1
Larceny,	62	Violating rules of training school,	1
Larceny in a building,	3	Walking railroad tracks,	3
Molesting railroad signals,	1		
Total,			179

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GIRLS.

Stubborn,	7	Wayward,	1
Vagrancy,	1		
Total,			9

DISPOSITION OF CASES.

BOYS.

Committed to Lyman School,	8	Probation, placed on,	104
Committed to Shirley,	6	Suspended sentence to Lyman School,	12
Continued from day to day,	4	Suspended sentence to Shirley,	6
Discharged,	5	Taken by State Board of Charity,	20
Filed away,	38		
Fined,	7		
Total,			210

GIRLS.

Committed to Lancaster,	1	Suspended sentence to Lancaster,	1
Filed away,	2		
Probation, placed on,	5		
Total,			9

REPORT OF THE MATRONS.

	Female Prisoners.	Female Lodgers.	Lost Children
December,	28	0	3
January,	18	4	6
February,	25	1	2
March,	21	0	9
April,	20	0	19
May,	19	0	23
June,	26	0	13
July,	35	0	10
August,	20	4	5
September,	26	0	13
October,	28	0	15
November,	25	0	8
	291	9	126

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OFFENSES.

Abandoning child,	1
Adultery,	1
Assault,	2
Breach of peace,	6
Common night walker,	19
Crime against chastity,	2
Defrauding hotel,	1
Disorderly conduct,	1
Disorderly house keeping,	3
Drunkenness,	106
Fornication,	10
Fortune telling,	2
Fugitive from justice,	5
Insane,	30
Keeping unlicensed dog,	1
Larceny,	19
Lewd and lascivious cohabitation,	7
Non-support of child,	1
Passing worthless check,	1
Profane and indecent language,	1
Runaways,	10
Stubborn child,	13
Trespass,	1
Vagrancy,	15
Violating drug law,	4
Violating liquor law,	9
Violating probation,	18
Witness,	2
Total,	291

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TABULATED STATEMENT OF ARRESTS

For the Year Ending November 30, 1916.

MONTHS.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Totals
Males	325	247	229	299	327	390	395	413	465	377	466	401	4,334
Females	28	18	25	21	20	19	26	35	20	26	28	25	291
Minors	60	41	29	36	40	61	62	71	63	56	49	50	618
Adults	293	224	225	284	307	348	359	377	422	347	445	376	4,007
Residents	247	191	190	246	264	271	291	316	313	248	368	294	3,234
Non-Residents	106	74	64	74	83	138	130	132	172	155	131	132	1,391
Americans	230	175	155	184	218	234	263	293	314	261	293	296	2,916
Foreigners	123	90	99	136	129	175	158	155	171	142	201	130	1,709
Totals	353	265	254	320	347	409	421	448	485	403	494	426	4,625

DISPOSITION OF CASES.

Fined and Paid	32	11	19	53	34	35	30	38	75	62	84	61	534
Fined and Committed	16	9	15	13	6	21	23	17	30	15	40	30	235
Committed for Sentence	26	11	14	17	14	20	21	14	18	20	27	28	230
Probated	43	36	41	55	38	35	33	30	38	35	22	34	458
Sentence suspended	74	44	37	38	48	66	62	90	69	40	56	42	666
Appealed	1	4	1	5	2	1	2	2	5	1	3	0	27
Bound Over to Superior Court	3	2	1	1	4	0	0	0	4	5	0	0	20
Released	68	47	47	57	82	130	99	111	101	97	102	94	1,035
Discharged	6	3	4	9	4	6	1	6	9	3	5	5	61
Pending	256	217	194	241	270	224	345	291	263	317	334	302	3,254
Filed Away	20	9	12	10	13	16	23	14	29	18	13	7	184

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REPORT OF

WATER COMMISSIONERS

FOR 1916

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CITY OF SPRINGFIELD, MASSACHUSETTS,
MUNICIPAL WATER WORKS.
1917.

BOARD OF WATER COMMISSIONERS.

EDWIN A. BLODGETT, *Chairman*,	Term expires February 1, 1919.
CHARLES H. MULLIGAN,	Term expires February 1, 1918.
FRANK E. STACY, *Mayor*,	ex officio.

SUPERINTENDENT:

ALFRED E. MARTIN.

WATER REGISTRAR AND CLERK OF BOARD:

ALFRED R. HATHAWAY.

CHIEF ENGINEER:

ELBERT E. LOCHRIDGE.

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WATER COMMISSIONERS' REPORT

WATER COMMISSIONERS' OFFICE.
ADMINISTRATION BUILDING.

SPRINGFIELD, MASS., December 26, 1916.

To the City Council of the City of Springfield, Mass.

GENTLEMEN:—The Board of Water Commissioners herewith submits its forty-third annual report, being for the year ending November 30, 1916.

Since the adoption of the new accounting system, from December 1, 1913, the water charges committed to the City Collector on December 1st of the year closing have not been included in the *earnings* of that year, which have been represented by the *twelve* monthly commitments from December 1st of the year previous to November 1st of the year closing, inclusive.

This custom obtained before the universal meter system was adopted, with the consequent division of the city into its several billing districts, and when the annual statements were made only on a basis of *cash* collections and payments.

While the *earnings* statements reported during the last two years have covered twelve months' water charges each year, they have not included the actual calendar months of each fiscal year, the December 1st commitment lapping over into the fiscal year following.

Inasmuch as the expenditures properly chargeable to each fiscal year have been so included in the annual statements since 1913, it has been deemed right and proper to place the revenue or earnings statements on the same basis. In doing this at this time the earnings statements submitted for the fiscal year of 1916 will therefore include *thirteen* commitments to the City Collector, but in succeeding years such statements will cover only twelve commitments.

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The total *earnings* (not cash revenue) of the Springfield municipal water works for the fiscal year of 1916 are shown as follows:—

Net water charges to private consumers (13 months' basis),..	$446,147.40
Municipal use of water (not charged because no payments to be made therefor, per city ordinance) (12 months),...	68,824.35
Water used by water works, and charged in its operating expenses,.....	75.30
Total,.....	$515,047.05

On the above basis this represents a total increase over the preceding year of $48,130.13, but a proper comparison with 1915 on a *twelve* months' basis gives the following results for 1916, viz.:—

Increase in *net* water charges to private consumers,.....	$20,553.77
Decrease in municipal use of water,.....	5,729.92
Net increase in earnings (12 months' basis),.....	$14,823.85

The total *cash receipts* (twelve months' collections) from all sources, —water, labor, and material, etc.,—during the past year amounted to $464,130.02, of which $411,423.13 was for water, an increase in water receipts of $16,376.72 over such receipts for the preceding year.

At the beginning of the year an estimated increase of $25,000 was predicted, provided average normal conditions of weather and business should be realized. But again the summer season has been a wet one and the usual use of water through hose for lawns and gardens has not been needed. This condition will undoubtedly account for the difference of $8,623.28 not realized in the increase as first estimated.

All operating and maintenance expenses and bonded debt charges have been met from the cash receipts, including the annual contribution to the sinking fund, besides the cost of all extensions and renewals made in the distribution system.

Although the demand for main pipe extensions and the need for renewals and improvements of the distribution system have been insistent, only such extensions were made as were absolutely needed, and others were deferred to the coming year, while no attempt was made to carry out contemplated improvements in the distribution system.

A large amount of the surplus cash receipts and other funds, ordinarily

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available for such work, were used in settlement of Little River claims, as shown elsewhere.

Additions to the plant, property, and equipment during the past year amounted to $194,250.16, including the following principal items:—$23,955.33 for ordinary extensions of distribution mains (mostly on usual guaranty basis), $3,826.24 for distribution improvement work, $9,329.35 for gates and hydrants, $4,169.62 for equipment, etc., $2,029.05 for improvements at Little River purification plant, $10,156.02 for Little River supply land and land expenses, and $140,698.96 for Little River supply water rights and expenses.

Six suits pending for several years on account of the Little River supply have been settled for the aggregate sum of $146,950 (four for water diversion = $140,000 and two for land taken = $6,950), which sum is included in the additions to plant, etc., as shown above.

This unusual expenditure was taken care of by the proceeds of a $100,000 bond issue (balance of total issue of $350,000 authorized in 1913), plus $18,900 remaining from sale of Bridge street property in 1914, and $28,050 taken from the cash revenue of 1916.

Only $2,370.09 has been used for renewals of the distribution system, —mostly for gate and hydrant work,—while the annual "depreciation reserve charge" of $36,000 to cover such work has been included in the operating expenses of the year.

No available funds are now left or authorized for unusual expenditures, except such as might be taken from current revenue receipts, and the latter are liable to be needed for meeting increasing demands for distribution main pipe extensions, as the city grows and vacant land areas are developed.

Payments on account of the bonded debt have been made during 1916 as follows:—

Interest paid on Ludlow supply bonds,	$10,375.00
Interest paid on Little River supply bonds,	69,590.00
Total interest paid,	$79,965.00
Little River supply serial bonds due and paid,	84,000.00
Annual amount for Sinking Fund for retirement of balance of Ludlow supply bonds (surplus cash receipts for 1916),	15,502.88
Total payments on account of bonded water debt (all from current revenue),	$179,467.88

This total amount is $5,426.37 less than such payments of the preceding year.

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The bonded debt on account of the municipal water works is shown as follows:—

Balance of Ludlow supply sinking fund bonds, due in 1920 and 1923,	$275,000.00
Little River supply serial bonds (including the $100,000 issue of 1916),	1,932,000.00
Total debt, November 30, 1916,	$2,207,000.00
Less sinking fund for retirement of Ludlow supply bonds,	148,222.37
Net bonded water debt, November 30, 1916,	$2,058,777.63

As the net bonded water debt a year ago was $2,063,236.42, it will be seen that the addition of the 1916 issue of $100,000 is more than offset by bonds paid and additions to the sinking fund from 1916 revenue.

The bonded water debt requirements for 1917 are as follows:—

Interest on Ludlow supply bonds,	$10,375.00
Interest on Little River supply bonds,	69,975.00
Total interest,	$80,350.00
Little River supply serial bonds due,	89,000.00
Annual amount for sinking fund for retirement of Ludlow supply bonds,	15,500.00
Total 1917 requirements,	$184,850.00

The increase of $5,385 over bond requirements for 1916 is practically represented by the payment of $5,000 annually due on the additional bond issue of 1916.

The Little River system has furnished during the past year a plentiful supply of water of satisfactory quality to the City of Springfield and to the suburban towns connected to the system. Owing to the abundance of rain through the summer season the Borden Brook reservoir has been drawn down but little, remaining practically full throughout the year.

A plant has been installed at the West Parish filters for manufacturing the sulphate of alumina used as a coagulant, because of shortage in the supply obtainable and the increased cost of same. This plant has been in use since July 5, 1916, with satisfactory results and a substantial saving in cost of the coagulant over the prevailing market price.

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Consumers in the town of Ludlow have been supplied with a good quality of water from the Ludlow reservoir, the same being filtered during the summer months, as heretofore.

All work during the past year has been done at higher costs than formerly, because of the unusual labor conditions and increased prices of materials, which from the present outlook are bound to continue.

The co-operative study of the electrolysis problem has been continued by the local public utilities and by the United States Bureau of Standards, and the latter is testing out its experimental plan called the "three-wire system" in the West Springfield portion of the Springfield Street Railway, in the hope that thereby a remedy or means of modification may be discovered for the electrolytic action on underground structures.

Early in the year the Board passed an order, superseding its action of 1911, for the purpose of more clearly establishing its policy and requirements pertaining to the supply and use of city water for operating hydraulic elevators by direct pressure. In addition to the requirements and provisions of the action superseded, and as a reasonable modification of same, provision is made for allowing those now in use to remain until, in the judgment of the Board, the discontinuance of such elevators "may be deemed to be warranted by reason of the owners' changes, alterations, or replacements of said elevators, or of the property where same are located, or when any other power may be deemed to be economically available; such elevators meanwhile to be subject to any special regulations of the Board." The Board thus adheres to its original policy and, as stated in the Water Commissioners' report for 1910, aims to eliminate such elevators "as rapidly as possible without injustice or undue hardship to the owners who have heretofore installed them in good faith and in the absence of any instructions to the contrary."

Your present Board of Water Commissioners, like those preceding it, would respectfully and urgently call the attention of your Honorable Body to the justice, practicability, and "good business" of assuring payment to your "public service enterprise," the municipal water works utility, for all water furnished to the various departments of the municipality at the expense of the water works.

In the years past many public-spirited citizens have served the City of Springfield as members of its Board of Water Commissioners, giving freely of their time and thought, with no remuneration other than the satisfaction of such service, and with no other incentive than civic pride and duty. These men have been close students of the municipal water system, in its production, its distribution, and in its financing, and we

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believe that, without exception, these worthy and reliable citizens have all arrived at one and the same conclusion, and that is that this municipally owned and operated water works is a *public utility* in the same sense as one privately owned and operated, and should be managed exclusively as such and along similar business lines and as a "public service enterprise" or investment of the "people" who comprise the municipality. It has always been the firm opinion of your Water Commissioners, past and present, that if this municipal public utility is to be rightfully conducted, it is entitled to all its just earnings, for supply furnished and services rendered both to individual consumers and to the municipality as well, to the end that it may properly assume and pay all its liabilities, furnish absolutely first-class production and service to the people, and lastly and most particularly that it may use its actual surplus earnings in the reduction of rates to consumers.

Your municipal water plant to-day faces conditions which will call for large expenditures of money in the near future. Additions to supply-units will be needed in a few years if the city continues to grow; our system of distribution is spread out over a wide and constantly expanding area, which means increasing expenditures for main pipe lines; outlying portions of the city are making strenuous demands for water service,—the Franconia section, Boston road, St. James avenue, and East Springfield, and many other lesser and scattered sections are among those claiming immediate attention.

The present prices of material for construction work are about one hundred per cent higher than when the Little river supply system was built seven or eight years ago, and the cost of labor, with its shorter hours, has increased in about the same proportion.

In the face of all these conditions there is a public demand, more or less urgent, for the reduction of the water rates. These rates have been in force for many years, and are the resultant of the earlier method of rate-making without regard to a proper relation of supply and service costs to necessary revenue and its equitable assessment upon persons and property served.

Your Board of Water Commissioners feels that an equitable adjustment of water rates and a proper reduction to the small consumers can only be made according to the best modern methods of rate-making as prescribed by public utility engineers and public service commissions throughout the country.

As stated in previous reports, the main obstacle to a sound basis for such adjustment and reduction has been the failure of the municipality to

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reimburse the water works for its expense in furnishing water and service to the various governmental departments of the city. To this extent also such departments are not showing their true costs of annual operation to the citizens of Springfield.

We therefore respectfully urge that this matter be given special consideration by your Honorable Body early in the coming year, and that it be either referred to the Committee on Finance, or to a special committee to be appointed, for conference with this Board, to see if some fair and justifiable basis can be reached for the adjustment of this long-delayed matter.

In making this urgent request we have given due consideration to the water works' acknowledged liability to the municipality for all expenses properly chargeable to such a public utility, and including taxes on its local property, as well as all expenses for collecting and auditing, treasurer's services, office rental, etc.

Following is a tabulation showing the municipal uses of water during the past year, so far as same is metered or may be estimated:—

MUNICIPAL USE OF WATER—1916.

(Unmetered quantity equivalents *estimated* from amounts, on basis of 5 cents per 100 cubic feet, or 6⅔ cents per 1,000 gallons.)

Classification.	Amounts.	Gallons.	Memo.
Schools,.....	$11,789.45	176,841,700	91% metered
Public Buildings (except schools),	1,865.35	27,980,200	56% metered
Public Parks,.....	1,254.60	18,819,000	13% metered
Public Playgrounds,.....	152.00	2,280,000	Unmetered
Merg Reduction Plant,.....	1,069.70	16,048,500	All metered
Building Purposes (Streets and Engineering Department),...	824.15	12,362,200	Unmetered
Street Sprinkling and Washing (many streets now oiled),....	1,234.10	18,511,500	Unmetered
Sewer Department (flushing),...	5,760.00	86,400,000	Unmetered
Watering Tanks and Drinking Fountains,.....	700.00	10,500,000	Unmetered
Total of above,.....	$24,649.35	369,743,100	
Fire Hydrant Service,.....	44,175.00	(Not reducible to quantities)	At $25 per hydrant
Total Municipal Use,....	$68,824.35	(As shown in report)	Registrar's

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As the unmetered uses in the above tabulation are all estimated on basis of unit rates prescribed by city ordinance, the resulting amounts and quantities shown may be less or more, but probably less, than actual results if these uses were all metered.

The total municipal use of water shown is less than that for 1915, on account of the Merg Reduction plant not having been operated as before, and the fall opening of the schools having been delayed by the recent epidemic. The use of water for street sprinkling has been largely superseded by the use of oil, but the recent addition of the street-washing machine to the street department's equipment may mean an additional use of city water the coming year. The placing of meters on such municipal services as the funds of the water works have allowed to date has resulted in a more careful oversight and control of such uses by the city officials in charge of same, in some cases reducing the quantity of water used or wasted by more than fifty per cent.!

The installing of meters on other municipal services, such as those for parks, fountains, fire stations, etc., would undoubtedly be followed by similar results.

While much progress has been made during the past year in the settlement of claims against the City of Springfield for land and water rights taken on account of the Little River supply system, there yet remain several such claims, some of which are in a fair way of adjustment.

It is understood by the Water Commissioners that the Park Department is considering the purchase from the water works of its land at Five Mile pond and on Boston road, comprising about thirteen acres, for park purposes. As there are several other prospective buyers of this property this Board would suggest that this matter be concluded as soon as possible.

Compensation should also be made for water works land included in recent lay-out of Park Department on Armory street, adjoining the former Van Horn reservoir property, if same is to be used for park purposes, this land being a portion of the "Kirkham" lot (so-called) purchased by the water works in 1891.

The Little River supply system of the City of Springfield is generally acknowledged to be one of the best-designed and most modern plants of its kind in the country, and your Board of Water Commissioners are duly mindful of the trust reposed in them, with its great responsibility, by placing under their charge the management of property and equipment which, including the Ludlow supply system, has cost over five and a half millions of dollars.

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It is the continued desire and policy of this Board to exercise at all times such oversight and control of the matters intrusted to them as will result in adequate and satisfactory service to the people of Springfield.

The reports of the Registrar, Superintendent, and Chief Engineer, with their accompanying appendices, give the details of the operation of the various divisions and are attached to and made a part of this report.

Respectfully submitted,

EDWIN A. BLODGETT,
CHARLES H. MULLIGAN,
FRANK E. STACY,

Board of Water Commissioners.

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WATER REGISTRAR'S REPORT

DECEMBER 26, 1916.

To the Board of Water Commissioners of the City of Springfield, Mass.

GENTLEMEN:—The following report of the Water Registrar for the fiscal year of 1916 is herewith presented.

It will be noticed that in the statements showing the "Income and Profit and Loss Account" for the year, the earnings from sales of water to private consumers, under "Operating Revenue," have been made to include the December 1, 1916, commitment of water bills to the City Collector, thus making a total of *thirteen* commitments (instead of twelve as in other years) credited as "Earnings" for 1916.

As the "Operating Expenses" each year since 1913 have been made to cover the actual fiscal period from December 1 to December 1, it has been deemed wise to have the "Operating Revenue" cover the same fiscal period each year, or as nearly so as possible.

Heretofore the twelve water commitments comprising the annual "Earnings" or Operating Revenue of any year have included the December 1st commitment of the year previous and the November 1st commitment of the year closing, thus covering twelve months each year, but not the same twelve months' period covered by the Operating Expenses.

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In order that proper comparisons may be made on a twelve months' basis with results of other years, either past or future, I have introduced in both the Income and Profit and Loss statements and in the classification statements of Operating Revenue, separate columns showing both the twelve months' results and those for the thirteen months, for easy reference.

After this year, of course, the statements of succeeding years will include only twelve commitments under the Earnings or Operating Revenue.

While the Operating Expenses of the past year have included the usual Depreciation Reserve Charge of $36,000, for the necessary renewals of the distribution system, the actual cost of such work done has been only $2,370.09.

This only covers the work that could not be put off, as much work of this nature needs to be done as fast as the cash funds will allow.

As my report is practically a financial one, I can do no better than submit the following statements in the same order and under the same logical arrangement as heretofore, viz.:—

Income and Profit and Loss Account, in condensed form, followed by details of its several items.

Balance Sheet, in condensed form, followed by details of its several items.

Sundry Statements of Cash Receipts and Expenditures, and showing same under the several funds.

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INCOME AND PROFIT AND LOSS ACCOUNT, YEAR ENDING NOVEMBER 30, 1916.

(See Details of Items Following.)

Operating Revenue.

			12 months.*	Dec. 1, 1916 Com't.	Total 13 months.
I.	Earnings from Sales of Water to Private Consumers,		$413,958.91	$33,306.28	$447,265.19
II.	Less Abatements, Refunds, etc.,		1,117.79	.....	1,117.79
			$412,841.12	$33,306.28	$446,147.40
III.	Earnings from Sales of Water to City of Springfield:— Earnings based on prescribed rates for water supplied were $68,824.35; but no payments were made therefor, as per city ordinance,		.....	.....	.....
III-A.	Water used by Municipal Water Works and included in its operating expenses,		75.30	.....	75.30
	Total Operating Revenues (Water),		$412,916.42	$33,306.28	$446,222.70

Operating Expenses.

IV.	Source of Supply,	$32,657.74			
V.	Transmission Expense,	2,886.75			
VI.	Distribution Expense,	35,979.25			
VII.	Commercial Expense,	12,429.87			
VIII.	General Expense,	29,981.10			
IX.	Undistributed Expense,	11,434.81			
		$125,369.52			
X.	Depreciation Reserve Charge (for Distribution System),	36,000.00			
	Total Operating Expenses,		161,369.52	.....	161,369.52
	Operating Profit,		$251,546.90	$33,306.28	$284,853.18
XI.	Non-Operating Income (Sundry Sales, not Water),		3,954.53	.....	3,954.53
	Gross Income,		$255,501.43	$33,306.28	$288,807.71

Deductions from Gross Income.

XII.	Interest on Bonded Debt (*net*),	$74,144.50			
	Total Deductions,		74,144.50	.....	74,144.50
	Net Income (12 months),		$181,356.93*		
	Net Income (13 months) (carried to Surplus),				$214,663.21

* For comparison with other years.

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DETAILS OF ITEMS IN PROFIT AND LOSS ACCOUNT.—1916.

Operating Revenue.

Earnings from Sales of Water to Private Consumers:—

	Net Revenue—12 Mos. (not incl'g Dec. 1, 1916, Com't.)*	Dec. 1, 1916, Commitment.	Net Revenue—13 Months.
Commercial Consumers (metered),	$336,482.76	$21,676.43	$358,159.19
Industrial Consumers (metered),	52,183.71	4,720.93	56,904.64
Institutional Consumers (metered),	5,292.80	291.17	5,583.97
Sales to Contractors (metered),	1,117.56	57.32	1,174.88
Sales to Contractors (unmetered),	1,578.56	123.50	1,702.06
Miscellaneous Consumers (metered),	11.80	.....	11.80
Miscellaneous Consumers (unmetered),	4,427.32	5,680.65	10,107.97
Earnings from within City:—			
(Metered),	$395,088.63	$26,745.85	$421,834.48
(Unmetered),	6,005.88	5,804.15	11,810.03
Total,	$401,094.51	$32,550.00	$433,644.51
Commercial Sales, Little River Transmission Main (metered),	$91.43	.....	$91.43
Commercial Sales, Ludlow (metered),	1,659.01	$483.66	2,142.67
Commercial Sales, Ludlow (unmetered),	150.00	.....	150.00
Commercial Sales, Wilbraham (metered),	1,076.15	272.62	1,348.77
Industrial Sales, Ludlow Mfg. Co.'s System (metered),	3,847.75	.....	3,847.75
Wholesale Service, Agawam (metered),	2,702.27	.....	2,702.27
Wholesale Service, West Springfield (metered),	1,000.00	.....	1,000.00
Wholesale Service, East Longmeadow (metered),	970.00	.....	970.00
Wholesale Service, Longmeadow (metered),	250.00	.....	250.00
Earnings from outside City:—			
(Metered),	$11,596.61	$756.28	$12,352.89
(Unmetered),	150.00	.....	150.00
Total,	$11,746.61	$756.28	$12,502.89
Total Earnings from Sales to Private Consumers, as per Items I. and II.:—			
(Metered),	$406,685.24	$27,502.13	$434,187.37
(Unmetered),	6,155.88	5,804.15	11,960.03
Total,	$412,841.12*	$33,306.28	$446,147.40

* For comparison with other years.

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DETAILS OF ITEMS IN PROFIT AND LOSS ACCOUNT.—1916.

Operating Revenue.—Continued.

Earnings from Sales of Water to City of Springfield:—			
Almshouse and Annexed Buildings (metered),			$402.45
Charities Department (Wayfarers' Lodge) (unmetered),			36.00
Drinking Fountains and Tanks (unmetered),			700.00
Fire Department (buildings) (metered),	$65.90		
" " " (unmetered),	508.00		
		$573.90	
" " Municipal Hydrant Service (1,767 hydrants,—average during year,—at $25 each),		44,175.00	
			44,748.90
Forestry Department (buildings) (unmetered),			30.00
Municipal Group (buildings) (metered),		$246.60	
" " (heating plant) (metered),		68.50	
			315.10
Park Department (fountains, ponds, hose, etc.):—			
(metered),		$162.10	
(unmetered),		1,092.50	
			1,254.60
Police Department buildings (metered),		$127.15	
" " " (unmetered),		28.50	
			155.65
Public Playgrounds (unmetered),			152.00
Public Sanitary (metered),			151.15
School Department (buildings) (metered),		$10,740.90	
" " " (unmetered),		1,048.55	
			11,789.45
Streets and Engineering Department:—			
Work-shop, Emery street (metered),		$7.60	
Buildings and yards (unmetered),		99.50	
Building purposes (unmetered),		824.15	
Sewer flushing (576 flush gates—average during year—at $10 each) (unmetered),		5,760.00	
Scavenger Division:—			
Incinerating plant (unmetered),	$8.00		
Reduction plant (metered),	1,069.70		
Buildings (unmetered),	86.00		
		1,163.70	
Street sprinkling and washing (unmetered),		1,234.10	
			9,089.05
Total Earnings from Sales to City of Springfield, as per Item III (unmetered),		$55,782.30	
" " (metered),		13,042.05	
			$68,824.35

☞ **No payment is made for this amount by the City, as per City ordinance.**

Municipal Water Works (water used at Broadway garage and Colton Street buildings—included in Operating Expenses), as per Item III-A (metered),	$75.30

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DETAILS OF ITEMS IN PROFIT AND LOSS ACCOUNT.—1916.

Operating Expenses.

Source of Supply:—	*Ludlow Supply.*	*Little River Supply.*	*Totals.*
Superintendence,	$761.40	$1,016.43	$1,777.83
Operating Labor,	2,154.63	2,656.52	4,811.15
Supplies and Expenses,	1,445.57	2,444.93	3,890.50
Sanitation,	258.00	2,060.40	2,318.40
Purification Labor,	707.85	11,860.19	12,568.04
Purification Supplies and Expenses,	218.50	5,989.93	6,208.43
Maintenance of Structures and Equipment,	34.70	555.94	590.64
Maintenance of Purification System,	492.75	.....	492.75
	$6,073.40	$26,584.34	
Total Source of Supply, as per Item IV.,			$32,657.74

Transmission Expense:—	*Ludlow Supply.*	*Little River Supply.*	*Totals.*
Provin Mountain Reservoir,			$2,667.10
Operating Labor,		$1,700.50	
Supplies and Expenses,		966.60	
Patrolling Transmission Mains,		27.85	27.85
Maintenance of Transmission Mains,			150.14
Ludlow Main No. 1, $5.14			
Ludlow Main No. 2, ...			
	$5.14		
Little River Main,		145.00	
Maintenance of Telephone System,		41.66	41.66
	$5.14	$2,881.61	
Total Transmission Expense, as per Item V.,			$2,886.75

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DETAILS OF ITEMS IN PROFIT AND LOSS ACCOUNT.—1916.

Operating Expenses.—Continued.

Distribution Expense:—

Street Division, Operating Labor,	$7,783.40
Meter and Fittings Division, Operating Labor,	3,470.91
Street Division, Supplies and Expenses,	993.23
Meter and Fittings Division, Supplies and Expenses,	470.51
Consumers Premises Expenses,	1,470.41
Maintenance of Mains,	1,292.45
Maintenance of Gates and Valves,	394.39
Maintenance of Services,	2,362.83
Maintenance of Hydrants,	1,927.39
Maintenance of Sprinkler Supply Pipes,	.....
Maintenance of Fountains and Troughs,	12.20
Maintenance of Meters,	4,418.35
Maintenance of Distribution Buildings, Fixtures and Grounds,	2,867.25
Maintenance of Foremen's House, 97 Colton St.,	3.90
Miscellaneous Distribution Expense,	8,232.18
Maintenance of Equipment,	58.14
Maintenance of Broadway Garage,	212.17
Electrolysis Survey,	9.54
Total Distribution Expense, per Item VI.,	$35,979.25

Commercial Expense:—

Commercial Division, Salaries,	$6,230.02
Commercial Division, Supplies and Expenses,	410.76
Reading Meters, Salaries,	3,965.54
Reading Meters, Supplies and Expenses,	732.42
Undistributable Inspection Expense,	1,091.13
Total Commercial Expense, per Item VII.,	$12,429.87

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DETAILS OF ITEMS IN PROFIT AND LOSS ACCOUNT.—1916.

Operating Expenses.—Continued.

General Expense:—

Salaries of Officers and Assistants,	$16,436.42	
Salaries of General Office Clerks,	7,290.74	
Salaries of General Office Clerks, Special Work,	.....	
Printing and Stationery,	1,324.85	
Miscellaneous General Office Supplies and Expenses,	4,910.49	
Maintenance of General Office Equipment,	18.60	
Legislative Expense,	.....	
Total General Expense, as per Item VIII.,		$29,981.10

Undistributed Expense:—

Injuries and Damages,	$624.68	
Utility Equipment Expense, Autos,	7,565.46	
Utility Equipment Expense, Teams,	1,589.87	
Stock and Stores Expense,	2,501.15	
Suburban Supplies Expenses,	24.41	
Miscellaneous Expense (including inventory adjustments), (*Credit*)	*870.76*	
Total Undistributed Expense, as per Item IX.,		$11,434.81

Depreciation Reserve Charge:—

Total, as per Item X.,		$36,000.00

Non-Operating Income:—

Sale of Products,—Wood, Sand, Hay, etc.,	$1,682.32	
Rent from Land, Buildings, etc.,	2,272.21	
Total Non-Operating Income, as per Item XI.,		$3,954.53

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DETAILS OF ITEMS IN PROFIT AND LOSS ACCOUNT.—1916.

Deductions from Gross Income.

Interest on Bonded Debt:—

On $125,000 Ludlow Supply 3½ per cent Bonds,	$4,375.00	
On $150,000 Ludlow Supply 4 per cent Bonds,	6,000.00	
Total, account Ludlow Supply Sinking Fund Bonds,		$10,375.00
On $430,000 Little River Supply 4 per cent Bonds, 1 month,	$1,433.33	
On $410,000 Little River Supply 4 per cent Bonds, 11 months,	15,033.34	
On $1,256,000 Little River Supply 3½ per cent Bonds, 1 month,	3,663.33	
On $1,202,000 Little River Supply 3½ per cent Bonds, 11 months,	38,564.17	
On $230,000 Little River Supply 4¼ per cent Bonds, 11 months,	8,960.41	
On $220,000 Little River Supply 4¼ per cent Bonds, 1 month,	779.17	
On $100,000 Little River Supply 3½ per cent Bonds, 1 month,	291.66	
Total, account Little River Supply Serial Bonds,		68,725.41
		$79,100.41
Less Interest Received on Sinking Fund (account Ludlow Supply Bonds),		4,955.91
Total Interest on Bonded Debt Deducted, as per Item XII.,		$74,144.50

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BALANCE SHEET—NOVEMBER 30, 1916.

(*See Details of Items Following.*)

Assets.

XIII.	Plant, Property and Equipment November 30, 1913,	$5,123,870.00	
XIII-A.	Additions to Plant, Property and Equipment since November 30, 1913,	455,366.92	
			$5,579,236.92
XIV.	Stock and Stores,		98,182.46
XV.	Accounts Receivable,		66,585.42
XVI.	City Treasurer,		300.00
XVII.	Sinking Fund,		148,222.37
	Total Assets,		$5,892,527.17

Liabilities.

XVIII.	Bonded Debt,	$2,207,000.00
XIX.	City of Springfield Equity,	3,150,069.23
XX.	Current Liabilities,	.....
XXI.	Accrued Interest,	27,162.50
XXII.	Depreciation reserve (for distribution system),	13,239.12
XXIII.	Surplus,	495,056.32
	Total Liabilities,	$5,892,527.17

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DETAILS OF BALANCE SHEET ITEMS, NOVEMBER 30, 1916.

Assets.

Plant, Property and Equipment, November 30, 1913* (including changes since that date):—		
In City.		
Original Purchase, including Franchise, Van Horn system, etc. (Balance),	$239,805.50	
Broadway Real Estate (garage),	9,020.45	
Van Horn Property, land (additional to original purchase),	4,419.00	
Colton Street Property:—		
Land, $20,194.58		
Buildings, 63,853.64		
Equipment, 30,075.30		
	114,123.52	
Utility Equipment and Furniture,	18,857.89	
Ludlow Main, No. 1 (portion in city),	230,659.32	
Ludlow Main, No. 2 (portion in city),	135,874.47	
Distribution System, including mains, gates, hydrants, meters, services, etc. (also including Orchard street 42" main, $29,088.29),	1,385,338.82	
		$2,138,098.97
Outside City.		
Ludlow Transmission Main, No. 1,	$153,772.88	
Ludlow Transmission Main, No. 2,	188,924.82	
Ludlow Supply, Land, Buildings, Structures and Equipment,	632,887.14	
Little River Supply:—		
Diversion Dam, Tunnel and Road,	357,487.81	
Filtration System,	328,572.01	
Provin Mountain Reservoir,	186,036.02	
Borden Brook Reservoir,	215,388.95	
42" Pipe Line,	497,130.12	
54" Pipe Line,	16,278.41	
Connecticut River Crossing,	100,024.97	
Telephone Line,	4,098.72	
Sanitation During Construction,	7,369.08	
Power Diversion,	117,598.21	
Forestation,	1,870.03	
Land on Watershed, No. Blandford, etc.,	36,056.28	
Miscellaneous Construction Expenses (engineering, legal, etc.),	120,806.96	
Expenditures, account possible supplies,	21,468.62	
		2,985,771.03
Total, as per Item XIII.,		$5,123,870.00*

* Book costs, subject to revision upon completion of appraisal and revised cost analysis.

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DETAILS OF BALANCE SHEET ITEMS, NOVEMBER 30, 1916.

Assets.—Continued.

Additions to Plant, Property and Equipment since November 30, 1913:—

Additions to Plant, Property and Equipment in 1914,			$189,991.48
Additions to Plant, Property and Equipment in 1915,			71,125.28
			$261,116.76
Additions to Plant, Property and Equipment in 1916:—			
Land,—Little River Supply,	$9,951.39		
Provin Mountain Reservoir,	204.63		
		$10,156.02	
Buildings, Fixtures and Grounds:—			
Little River Supply, Buildings, Borden Brook House,	$31.50		
Little River Purification Plant,	2,029.05		
Distribution Buildings, Fixtures and Grounds,	27.40		
		2,087.95	
Distribution System:—			
Mains,	$27,858.26		
Gates,	3,926.75		
Hydrants,	5,402.60		
	$37,187.61		
Less Credit, Account Meters,	50.00		
		37,137.61	
General Office Equipment,		477.87	
Shop Equipment and Tools,		365.60	
Utility Equipment,		3,326.15	
Miscellaneous Construction Expense (water rights),		140,698.96	
Total Additions to Plant, Property and Equipment, 1916,			194,250.16
Cost of Total Additions to Plant, Property and Equipment since November 30, 1913, as per Item XIII-A.,			$455,366.92

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DETAILS OF BALANCE SHEET ITEMS, NOVEMBER 30, 1916.

Assets.—Continued.

Stock and Stores (as per Inventory):—

Cast-iron Pipe Stock,		$59,087.02
Wrought-iron Pipe Stock,		8,193.24
Meter Stock,		9,666.08
Stores and Supplies,		1,419.71
Small Tools Stock,		9,077.58
Engineers' Supplies,		800.20
Filter Supplies (Ludlow),		1,067.33
		$89,311.16
Little River Operating Supplies:—		
At Borden Brook Reservoir,	$824.32	
At North Blandford,	569.60	
At West Parish Filters,	2,478.13	
At West Parish Filters (laboratory)	4,855.64	
At Provin Mountain Reservoir,	143.61	
		8,871.30
Total Stock and Stores, as per Item XIV.,		$98,182.46

Accounts Receivable:—

Consumers' Accounts Committed to City Collector,—		
Balance Uncollected November 30, 1915,	$22,780.89	
Committed to City Collector during Present Year (13 mos.),	506,591.60	
		$529,372.49
Collected by City Collector and Paid to Treasurer during Present Year (12 mos.),	$464,130.02	
Abated to City Collector during Present Year,	1,372.62	
		465,502.64
Consumers' Accounts Committed to City Collector,— Balance Uncollected November 30, 1916 (includes December 1, 1916 commitment),		$63,869.85
Consumers' Accounts not yet Committed to City Collector,—Miscellaneous Sales Charges, etc.,		2,715.57
Total Accounts Receivable, as per Item XV.,		$66,585.42

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DETAILS OF BALANCE SHEET ITEMS, NOVEMBER 30, 1916.

Assets.—Continued.

***City Treasurer* (*see Cash Summary*):—**

Cash in hands of City Treasurer, Revenues (balance transferred to Sinking Fund),	.....	
Cash in hands of City Treasurer, Lombard Reservoir Lot Fund,	$300.00	
Total City Treasurer, as per Item XVI.,		$300.00

***Sinking Fund* (*Account Ludlow Supply Bonded Debt*):—**

Balance in hands of Sinking Fund Commissioners, November 30, 1915,	$109,949.33	
Net surplus transferred from Water Works cash revenue of 1915,	17,814.25	
	$127,763.58	
Interest earnings and additions credited by Sinking Fund Commissioners during 1916 (net),	4,955.91	
Balance in hands of Sinking Fund Commissioners, as per their report of November 17, 1916,		$132,719.49
Net surplus from Water Works cash revenue of 1916,		15,502.88
Total Sinking Fund, as per Item XVII.,		$148,222.37

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DETAILS OF BALANCE SHEET ITEMS, NOVEMBER 30, 1916.

Liabilities.

Bonded Debt:—

	Outstanding Nov. 30, 1915.	Paid During Present Year.	Outstanding Nov. 30, 1916
Ludlow Supply 3½ per cent Sinking Fund Bonds, due October 1, 1920,	$125,000.00	.....	$125,000.00
Ludlow Supply 4 per cent Sinking Fund Bonds, due October 1, 1923,	150,000.00	.....	150,000.00
Little River Supply 4 per cent Serial Bonds,	430,000.00	$20,000.00	410,000.00
Little River Supply 3½ per cent Serial Bonds,	1,256,000.00	54,000.00	1,202,000.00
Little River Supply 4¼ per cent Serial Bonds,	230,000.00	10,000.00	220,000.00
	$2,191,000.00	$84,000.00	$2,107,000.00
Little River Supply 3½ per cent Serial Bonds issued November 1, 1916,	.....	.....	100,000.00
Total Bonded Debt, as per Item XVIII.,			$2,207,000.00

City of Springfield Equity:—

Balance November 30, 1915,	$2,971,819.07
Added during Present Year for new Construction Paid from Revenue (including Bridge street proceeds),	94,250.16
Added during Present Year for Bonds Paid from Revenue,	84,000.00
Total City of Springfield Equity, as per Item XIX.,	$3,150,069.23

Current Liabilities:—

Total Current Liabilities, as per Item XX.,	.....

Accrued Interest:—

Accrued Interest on Ludlow Bonds,	$1,729.17	
Accrued Interest on Little River Bonds,	25,433.33	
Total Accrued Interest, as per Item XXI.,		$27,162.50

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DETAILS OF BALANCE SHEET ITEMS, NOVEMBER 30, 1916.

Liabilities.—Continued.

Depreciation Reserve (for Distribution System):—

Aggregate of amounts credited to this account (and charged to Operating Expenses under "Depreciation Reserve Charge") for three years of 1914, 1915, 1916, at $36,000 per year,		$108,000.00
Less Cost of Distribution System Renewals charged to above "Reserve" account during the three years, as follows:—		
In 1914 (see 1915 report),	$72,147.60	
In 1915 (" " "),	20,243.19	
In 1916 as follows:—		
Distribution Mains, $261.81		
Gates and Hydrants, 2,108.28		
	2,370.09	
		94,760.88
Total Depreciation Reserve, as per Item XXII.,		$13,239.12

Surplus Account:—

Balance November 30, 1915,		$438,252.48
Net Income for 1916 from Profit and Loss Account (13 months' revenue),		214,663.21
Amount of net excess of Distribution System Renewals over Depreciation Reserve for two years to November 30, 1915, charged then to Surplus and now credited same, account chargeable to aggregate "Depreciation Reserve" to date,		20,390.79
		$673,306.48
Transfer to City of Springfield Equity Account for new Construction paid from revenue (including Bridge street proceeds),	$94,250.16	
Transfer to City of Springfield Equity Account for Bonds paid from 1916 revenue,	84,000.00	
		178,250.16
Total Surplus Account, as per Item XXIII.,		$495,056.32

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CASH SUMMARY.—1916.

Items.	Water Works Revenue.	Proceeds Little River Bond Sale.	Lombard Reservoir Fund.	Bridge Street Proceeds.	Total.
Receipts—1916.					
Collections Paid to City Treasurer by City Collector:—					
For Water,.....	$411,423.13				
For Misc. Sales,.....	52,706.89				
	$464,130.02	.....	.....	.....	$464,130.02
For Refunds (sundry accounts),.....	544.67	.....	.....	.....	544.67
For Proceeds of Little River Bond Issue,..	.....	$100,000.00	.....	.....	100,000.00
Total Receipts,.....	$464,674.69	$100,000.00	.....	.....	$564,674.69
Balance in hands of City Treasurer, Nov. 30, 1915,.....	.....	.....	$300.00	$18,900.00	19,200.00
Total Receipts and Balances,.....	$464,674.69	$100,000.00	$300.00	$18,900.00	$583,874.69
Expenditures—1916.					
Total Bills Approved and Paid,.....	$160,414.76	$100,000.00	.....	$18,900.00	$279,314.76
Total Pay Rolls Approved and Paid,...	124,792.05	.....	.....	.....	124,792.05
	$285,206.81				
Interest Paid on Ludlow Bonds,.....	10,375.00	.....	.....	.....	10,375.00
Interest Paid on Little River Bonds,.....	69,590.00	.....	.....	.....	69,590.00
Little River Serial Bonds Paid,.....	84,000.00	.....	.....	.....	84,000.00
	$449,171.81				
Amount for Sinking Fund (account Ludlow Supply Bonds),	15,502.88	.....	.....	.....	15,502.88
Total Expenditures,..	$464,674.69	$100,000.00	.....	$18,900.00	$583,574.69
Balance in hands of City Treasurer, Nov. 30, 1916,.....	.....	.....	$300.00	.....	300.00
Total Expenditures and Balances,.....	$464,674.69	$100,000.00	$300.00	$18,900.00	$583,874.69

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DIVISION OF WATER WORKS CASH EXPENDITURES.—1916.

From Operating Revenue.

Operating Expenses,		$125,369.52	
Less amount charged in Operating Expenses for water used (not cash),		75.30	$125,294.22
Construction:—			
Land, Little River Supply,	$9,951.39		
Provin Mountain Reservoir,	204.63		
		$10,156.02	
Buildings, Fixtures and Grounds:—			
Little River Supply Buildings, Borden Brook House,	$31.50		
Little River Purification Plant,	2,029.05		
Distribution Buildings, Fixtures and Grounds,	27.40		
		2,087.95	
Distribution System:—			
Mains,	$27,858.26		
Gates,	3,926.75		
Hydrants,	5,402.60		
	$37,187.61		
Less Credit, Account Meters,	50.00		
		37,137.61	
General Office Equipment,		477.87	
Shop Equipment and Tools,		365.60	
Utility Equipment,		3,326.15	
Miscellaneous Construction Expense (Water Rights),		21,798.96	
Net Total Construction Paid from Revenue,			75,350.16
Renewals:—			
Street Work (Main Pipe),		$261.81	
Street Work (Gates and Hydrants),		2,108.28	
			2,370.09
Cost of Sales (services, meters, repairs, etc., chargeable to consumers),			53,762.46
Treasurer's advance for 1916 petty cash expenses at office,			500.00
Sundry overpayments (amount deducted from operating expenses, when refund was made),			44.67
			$257,321.60
Increase in stock and stores November 30, 1916, over November 30, 1915,			27,885.21
Total Approved Bills and Pay Rolls paid,			$285,206.81
Interest Payments,		$79,965.00	
Bond Payments,		84,000.00	
Sinking Fund Payments,		15,502.88	
Total Bonded Debt Requirements Paid,			179,467.88
Total Cash Payments from Operating Revenue,			$464,674.69

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DIVISION OF WATER WORKS CASH EXPENDITURES.—1916.

From Bond Funds.

Miscellaneous Construction Expense (account water rights Little River Supply),	$100,000.00

From Bridge Street Proceeds.

Miscellaneous Construction Expense (account water rights Little River Supply),	$18,900.00

SUMMARY OF CONSTRUCTION COST.—1916.

Construction Charged against Revenue during Present Year,	$75,350.16
Construction Charged against Bond Funds during Present Year,	100,000.00
Construction Charged against Bridge Street Proceeds Fund during Present Year,	18,900.00
Total Construction from all Funds during 1916 (additions to plant, property and equipment),	$194,250.16

APPENDICES.—1916.

Tabulations and statistics, including a summary in form as recommended by the New England Water Works Association, will be found in the appendices to this report.

Respectfully submitted,

ALFRED R. HATHAWAY,

Water Registrar.

BOARD OF WATER COMMISSIONERS, December 26, 1916.

Accepted and ordered made a part of the report of the Board to the City Council.

A. R. HATHAWAY, *Clerk.*

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SUPERINTENDENT'S REPORT

DECEMBER 26, 1916.

To the Board of Water Commissioners of the City of Springfield, Mass.

GENTLEMEN:—I herewith submit the forty-third annual report of the Superintendent, being for the year ending November 30, 1916.

The amount of pipe laid, the number of gates and fire hydrants set, the amount of pipe discontinued, and the number of gates and fire hydrants taken out, are shown as follows:—

MAIN PIPE, GATES AND HYDRANTS ADDED—1916.

NUMBER.	Extensions.	Renewals.	Private.	TOTALS.
Feet of pipe laid, 1916,.....	22,425	1,865	2,500	26,790
Added,—account of previous years,.....	68	63	0	131
Total pipe added, 1916,..	22,493	1,928	2,500	26,921
Gates set, 1916,.....	234	19	43	296
Added,—account of previous years,.....	0	0	0	0
Total gates added, 1916,..	234	19	43	296
Fire hydrants set, 1916,....	70	38	0	108
Added,—account of previous years,.....	0	0	0	0
Total fire hydrants added, 1916,.....	70	38	0	108

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MAIN PIPE, GATES AND HYDRANTS TAKEN OUT OR ABANDONED—1916.

NUMBER.	TOTALS.
Feet of pipe,	3,133
Gates,	25
Fire hydrants,	38

There are now in use 223.02— miles of supply and distribution mains, a net addition of 4.51— miles the past season.

We have laid nearly 22,500 feet of main pipe at a cost of $27,858.26, including ordinary extensions with gates and connections.

There has been very little replacing of old pipe by new, and such as there was, has cost the department very little money. The 2″ pipe in Prince street was replaced with a 6″, and inasmuch as the 2″ was practically worn out, the cost of the 6″ was considered an extension instead of a renewal and charged as such. One other renewal was made in Longhill street from its junction with Washington boulevard to Pecousic villa, a length of about 1,300 feet. This renewal was caused by the cutting down and regrading of that portion of the street by Fred T. Ley, who owns the abutting property on the north side. The 6″ pipe here was replaced with an 8″ one, and the labor-cost of doing this work was assumed by Mr. Ley, the department furnishing the 8″ pipe and such extra hydrants as were needed and returning the 6″ into stock, charging the difference between the cost of the 6″ and 8″ pipe and the above mentioned hydrants to extensions. The above constitutes all of the renewals that have been made during the season.

With the above exceptions, we have done nothing during the year for the improvement of the distribution system, partly on account of its not being called for in the streets resurfaced by the Department of Streets and Engineering, but more particularly on account of lack of funds to accomplish such work. We have, however, laid main pipes in three short streets, viz., Autumn from Summer to Worthington, Salem between Pearl and the angle at Mattoon street, and Ingraham avenue from High to Union street.

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Such work as might have been accomplished during the year was further delayed and held back by the labor situation, which has handicapped the department in all its work during the past season. During the winter of 1915–1916, the laborers of the city formed a shovelers' union, and a strike for higher wages was instituted to take effect on April first. The outcome of this strike was an agreement by arbitration of a rate of 30 cents per hour for an eight-hour day or $2.40 per day as a minimum for shovelers' or laborers' pay. The city was paying $2.25. If overtime was worked, the agreement called for 32 cents for the ninth and 35 cents for the tenth consecutive hours, and for all time in excess of ten hours, also Sundays, the laborer was to receive pay at a rate of one and one-half hours for each hour worked. It was early decided by our City Solicitor that the city could not discriminate between its citizens to the extent of running a "closed shop" so called, but the above scale of wages was adopted by the different departments and all laborers' pay in this department was raised in proportion, averaging a raise of 6⅞%. Notwithstanding the above raise in pay, it has been impossible to keep men in our pipe-laying gang, every man who was not getting at least $2.75 per day deserting us for higher wages with contractors, so that our regular pipe-laying gang, which usually carries from thirty to fifty men, has been reduced to ten, all of whom are old standbys who have been with us for upwards of ten to fifteen years. In consequence of the above handicap we have been unable to keep up with our extension work, and there are several such extension orders that will have to lay over until next season; if the shortage of men continues, a trenching machine will become a necessity for a part of our equipment for the coming year. In spite of the above, however, we have laid about 5.1 miles of pipe, which is a little over three miles short of last year's work.

Early in the season the department was approached by the Fiberloid Company of Indian Orchard with a proposition for the building of a new chimney directly over the line of our 30" water main which passes through their yard. It was not thought advisable to try to maintain the water main in such a precarious location, and after some negotiation it was finally agreed by the Fiberloid Company to pay the Water Department a major portion of the cost of removing the main from their yard and relaying it in Worcester street adjoining. It was necessary to remove about 1,600 feet of the above main from its old location, and that work has been the largest single job that we have attempted during the season.

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The same handicap, however, has applied to this as to all other work which we have attempted during the season, viz., the lack of men for its prosecution, and at present, while the main is practically all removed from the yard, none of it has been relaid. A deal, however, has been made with a local contractor to furnish men for the completion of this work, and if the weather holds suitable it is hoped that the above result may be reached by January first.

One hundred eight hydrants have been installed on lines of extensions and replacements, of which number 70 are additional and 38 are renewals.

Two hundred ninety-six gates have been set, of which number 277 are additional and 19 renewals.

Six hundred fifty-three new taps have been made for service pipes, and 421 old ones have been replaced, making a total of 1,074; 47 old ones have been abandoned and cut off, leaving a net total increase of 606 for the year. This, plus last year's total of 14,642, makes the number of taps now connected to the system 15,248.

There have been 102 leaks in service pipes repaired at the expense of the department, of which 28 leaks were at corporation cocks, 17 on lead pipe or connections, and 11 were at stops in the walk. Thirteen of these leaks were directly caused by work of parties outside the department. The total cost of repairing the same was $1,209.11, an average of $11.85+ per leak. There were also 9 leaks repaired at the expense of owners of the service pipes, making a total of 111 service pipe leaks during the year. None of these leaks in themselves were very difficult or costly in repairing, but the cost of repairing pavement in one or two leaks in Ferry street has been quite large, bills from the Department of Streets and Engineering amounting to $121.91 for such repairs having been approved by this department.

There have been 39 leaks in main pipes during the year, an average of 0.17+ per mile of main pipe in use. The following table shows the kinds and sizes of pipe in which these leaks occurred:—

Kind and Size of Pipe.	1″	2″	6″	8″	10″	12″	16″	24″	30″	36″	42″	Totals.
Cast-iron,	..	..	10	4	2	5	2	3	8	2	1	37
Wrought-iron,	1	1	..	..	..	..	..	..	..	..	..	2
Total leaks,	1	1	10	4	2	5	2	3	8	2	1	39

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Twenty-six of these leaks were at bad joints; 5 were in hydrant connections; 3 were directly caused by work of parties outside the department; and 2 plugs blew out.

Hydrants have, as usual, been regularly inspected and kept in working condition. There has been quite an epidemic of breaking of hydrants by automobiles during the last year, no less than sixteen having been so broken. When the auto is insured, we usually have no trouble in collecting the cost of repairing them, but, if broken by a horse team, it is sometimes impossible to do so; eight of such bills have been collected during the year aggregating $124.13.

The gate system has been inspected and gates operated, besides keeping up with the Street Department work where gate boxes had to be raised or replaced in connection with new paving. In addition to this, the gang has inspected and relocated upwards of 1,400 stop boxes on service pipes.

Our real estate is in first class condition, and our yard is well stocked with pipe for next year's work. This stock of pipe was purchased with the expectation of doing quite a season's work in replacing old mains and reinforcing our system in new locations, but on account of the above mentioned handicap for labor it has been impossible to do any of such work as we had planned. The pipe is good property, however, as its value has increased nearly 50% since it was purchased, and it is quite possible that it may be of use during the coming season.

METER WORK.

There is little that is new to report concerning the meter work of the year, which has consisted as usual of the routine work of repairing and caring for all that have needed such attention, and the setting of new ones in newly built property. Approximately 2,900 meters have been repaired and tested and 568 new ones have been set, making a total of about 3,470 handled during the year.

The matter of setting dectector meters on old fire protection services has been more or less held in abeyance on account of the condition of our finances, but during the coming season there should be no reason why it cannot be taken up and promptly and vigorously prosecuted to its completion.

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STATISTICS.

In the appendices to this report will be found tables showing the pipe laid, gates and hydrants set, pipe, gates and hydrants taken out, etc.

Respectfully submitted,

ALFRED E. MARTIN,
Superintendent.

BOARD OF WATER COMMISSIONERS, DECEMBER 26, 1916.
Accepted and ordered made a part of the report of the Board to the City Council.

A. R. HATHAWAY, *Clerk.*

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CHIEF ENGINEER'S REPORT

DECEMBER 26, 1916.

Board of Water Commissioners, Springfield, Mass.

GENTLEMEN:—Water necessary for the city and for the several suburban towns dependent on the Springfield system has been maintained throughout the year of satisfactory quality, and without the need of restriction. The year has been unusual in many respects. It has been difficult to secure all of the help needed part of the time, and the inability to secure promptly necessary materials has brought about the necessity of many expedients. These restrictions are hard in any public utility, and especially so on the supply division of a water works plant, as the flow of water must be insured every hour of the day and night, and its quality maintained at all times. These conditions have brought about higher expenditures for the results obtained, and detracted from extensions of the system, which under other circumstances would be advisable. In the city this has also made necessary the delay in the construction of large mains needed for the betterment of service.

During the year six suits which have been pending from three to ten years have been settled. Four of these were on account of the diversion of water and damage to water powers effected by the taking of Little River, while two were for land taken in connection with the same system. The amount thus paid aggregated $146,950. Towards the payment of these damages $100,000, which is the balance of the bond issue authorized by the Legislature in 1913, has been used, the difference being taken from the revenue and reserve funds. These bonds do not increase even for the year the total net bond indebtedness of the water works plant, as an equal amount was set aside during this year as in every year for the retirement of outstanding bonds and for payments in the sinking fund. The use of this balance removes the only money authorized for any such extraordinary payments, and the department will be fortunate if no further need of money beyond the years' revenue arises.

It would probably be very difficult to ascertain with any degree of accuracy the actual growth in population in the city during the past year. The new services, materially greater amounts of water called for, together with the demand for pipe extensions, indicate that the increase has been

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abnormal. It is almost eleven years since the bill authorizing the use of Little River was passed, and the water has been utilized by the city for seven full years. The extension of the sale of water by meter has served to prevent any rapid increase in the total amount of water used up to the present time. With all except a portion of the municipal connections metered, no further reduction from meter extensions being possible, the total use is now advancing with the growth of the community. An increase in the use of water will ultimately require extensions in the system of additional storage reservoirs, additional filtering area, additions to the filtered water storage at Provin Mountain and ultimately an additional pipe line. You now control all the sites for the necessary dams, and in a large part for all necessary storage reservoirs which will ever be required. The possibilities of each of these sites in the amount of water which could be impounded, the height and approximate location of the dams necessary have been pretty thoroughly determined, so that much of the preliminary work which so frequently consumes time before construction can start has been accomplished. Only in the question of capacity for filtration has there been any indication of approaching the full use of our present facilities. With continued expansion of the city, development of the Little River sources will be necessary within a few years. All of the information which it is possible to secure in advance looking toward keeping the plant abreast of the city's growth, has or is being secured. No expenditure for the increase of any of these features should be necessary during the coming year.

The shortage and high price of sulphate of alumina used at the filtration plant for color reduction and purification of the water, made necessary the construction of the necessary equipment by which this material could be manufactured in our own buildings. Other cities have found this same trouble, and I am informed that at the close of this year Springfield is one of four American cities to have taken this step. The plant was put into operation on July 5, 1916, and substantially the entire amount of coagulant needed has been manufactured by it at a total cost, including all extra labor, considerably under the market price of sulphate of alumina.

Work has been continued during the year in conjunction with the other public service corporations and departments under the direction of the United States Bureau of Standards, looking towards the mitigation of the electrolysis conditions on both the supply and distribution pipes of our system. By arrangement with the Springfield Street Railway Company, the trolley system within the town of West Springfield has been reconstructed in accordance with the "three-wire system," and various

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tests are at present being made to determine the amount of current which this system will divert from our large mains as well as from the other cables and pipes of other public utilities. This or some other method of relief from the electrolytic conditions is seriously needed.

The general sanitary conditions of both watersheds have been maintained to preserve the purity of the water. The state and town requirements for gypsy and brown-tail moth suppression have been carried out. Two sales of timber from watershed land have been made during the year. The filter at the Ludlow reservoir was operated throughout the summer months, making satisfactory the quality of the water furnished to Ludlow.

The operation of the West Parish filters for the purification of the Little River supply is given in detail in an appendix of this report. Analyses have been made monthly by the State Department of Health and daily in our own laboratory. The water as delivered has been of excellent quality. Filtration costs in detail are also given in an appendix.

The following is a statement of some of the principal features of the use of water during the year:—

Water supplied during 1916 from Little River supply:—		
East Longmeadow,	gallons,	7,876,600
Agawam,	"	35,811,300
West Springfield, emergency, 13 days,	"	5,359,000
Springfield, including West Wilbraham village,	"	4,120,660,000
Total water used from Little River system, during 1916, in metropolitan area,	"	4,169,700,000
Average use per day during 1916:—		
East Longmeadow,	"	21,500
Agawam,	"	97,800
Springfield, including West Wilbraham village,	"	11,260,000
Per capita daily use during 1916:—		
East Longmeadow (population 2,016; 50% of town supplied, 1,008),	"	21
Agawam (population 4,766),	"	21
Springfield (population 105,780; Wilbraham, 500),	"	106
Water supplied Ludlow village (Ludlow Mfg. Associates) during 1916 from Ludlow supply,	"	69,503,000
Other customers in Ludlow from Ludlow supply,	"	7,854,500
Average use per day, Ludlow,	"	189,900
Per capita daily use during 1916, Ludlow (population 6,512),	"	29
Maximum amount of water drawn in one day, Little River system, August 8,	"	14,100,000

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Minimum amount of water drawn in one day, Little River system, January 2,	gallons,	8,270,000
Increase in total amount supplied from Little River system over amount supplied in 1915,	"	427,770,000

No additional land has been acquired during the year. The total amount owned in connection with the Little River supply is 4,424 acres and in connection with Ludlow supply is 1,235 acres.

Borden Brook, the storage reservoir of the Little River system, remained substantially full, being drawn but one and seven tenths feet, a depletion of 179 million gallons as compared with a depletion of 1,386 million gallons in 1914 and 36 million gallons in 1915.

The following appendices give in detail the statistics of the year:—

XIII. Summary of Total Supply.
XIV. Daily Use of Water from Little Rivery Supply,—All Towns and City.
XV. Daily Use of Water by East Longmeadow.
XVI. Daily Use of Water by Agawam.
XVII. Daily Use of Water by West Springfield.
XVIII. Daily Use of Water by Springfield.
XIX. Daily Use of Water by Ludlow Village (Ludlow Manufacturing Associates).
XX. Rainfall Statistics for the Year.
XXI. Operating Details of West Parish Filters.
XXII. Operating Costs of West Parish Filters.

Respectfully submitted,

ELBERT E. LOCHRIDGE,
Chief Engineer.

Board of Water Commissioners, December 26, 1916.

Accepted and ordered made a part of the report of the Board to the City Council.

A. R. HATHAWAY, *Clerk.*

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APPENDIX TO

WATER COMMISSIONERS' REPORT

FOR 1916

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APPENDIX I.

SUMMARY OF STATISTICS

For the Year Ending November 30, 1916.

In form recommended by the New England Water Works Association.

MUNICIPAL WATER WORKS,

City of Springfield, Hampden County, Massachusetts.

GENERAL STATISTICS.

Population of Springfield by State census of 1915, . . . 102,971
Estimated population of Springfield for 1916, . . . 105,780
Dates of construction:—
Original works in city (*not now in system*), as follows:—
Small supply from springs (by private enterprise), . . 1843
Van Horn reservoir supply (by Springfield Aqueduct Co.), . 1848
Enlargement of above supply (by Springfield Aqueduct Co.), 1864
Sale of above to City, for $238,296 (by Springfield Aqueduct Co.), 1872
Works at Ludlow, Mass., ... 1873–1874–1875
Works at Belchertown, Mass. (auxiliary to Ludlow), 1890–1891
Additional main from Ludlow reservoir, . . . 1893–1894
New supply from Westfield Little River, . . . 1907–1910
By whom owned, ... City of Springfield
Source of supply used by Springfield District (filtered and metered):—
From Westfield Little River, storage capacity as follows:—
Borden brook reservoir (*impounding*), . 2,500,000,000 gallons
Intake reservoir (*diverting*), ... 40,600,000 gallons
Sedimentation basin (*before filtering*), . . 38,700,000 gallons
Provin mountain reservoir (*filtered*), . . 17,000,000 gallons

Total, ... 2,596,300,000 gallons

Source of supply used by adjoining town of Ludlow (filtered into standpipe during summer; unmetered):—
From impounding reservoirs in Ludlow and Belchertown (fed by natural streams, springs and surface water); storage capacity as follows:—
Total (*can be used by Springfield in emergency*), . . . 1,434,218,000 gallons

(Aggregate storage capacity, 4,030,518,000 gallons.)
Mode of supply, ... entirely by gravity

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REVENUE (*credited*)—1916.

(In revised form recommended by Committee of N. E. W. W. A. in 1913.)

Balances brought forward:—				
a.	From ordinary (maintenance) receipts,—(cash surplus transferred to sinking fund at end of previous year),		.....	
	Accounts receivable, Nov. 30, 1915,		$26,851 05	
b.	From extraordinary receipts:			
	Balance of Bridge Street proceeds fund,		18,900 00	
	Lombard Reservoir fund,		300 00	
c.	Inventory of stock and stores on hand Nov. 30, 1915,		70,297 25	
	Net total (forward from 1915),			$116,348 30
Earnings from Water Rates:—				
A.	**Fixture Rates (*within city*):—**			
a.	Domestic,	.....		
b.	Builders' use,	$1,702 06		
c.	Unclassified,	10,107 97		
			$11,810 03	
B.	**Meter Rates (*within city*):—**			
a.	Domestic,	$317,116 87		
b.	Commercial,	39,042 47		
c.	Industrial,	56,904 64		
d.	Institutional (includes churches),	7,588 82		
e.	Builders' use,	1,174 88		
f.	Unclassified,	11 80		
			421,834 48	
C.	**Public Uses (*not charged or collected, per city ordinance*):—**			
a.	Hydrants,	$44,175 00		
b.	Fountains,	700 00		
c.	Street washing and sprinkling,	1,234 10		
d.	Public buildings,	13,654 80		
e.	Sewer and street department, building purposes,	824 15		
f.	Park uses,	1,254 60		
g.	Public playgrounds,	152 00		
h.	Flushing sewers,	5,760 00		
i.	Reduction plant,	1,069 70		
		$68,824 35	.....	
	Total from within city,		$433,644 51	

EXPENDITURES (*charged*)—1916.

Water Works Maintenance:—				
AA.	Operating expenses (includes all maintenance except renewal of distribution mains, gates and hydrants),			$125,369 52
BB.	Special:—			
	Renewal work, distribution system,			2,370 09
CC.	Total maintenance and operating expenses charged 1916 (not including interest),			$127,739 61
DD.	Interest on bonds (amount paid), (CC+DD=$207,704.61)			79,965 00
EE.	Payment of bonds (for new supply) (old supply bonds payable from sinking fund),			84,000 00
FF.	Sinking fund (for Ludlow supply bonds),			15,502 88
Water Works Construction:—				
GG.	Extension of mains,	$27,858 26		
HH.	Extension of services (paid for by consumers),	.....		
II.	Extension of meters (paid for by consumers),	.....		
JJ.	Special:—			
	Hydrants—extension,	5,402 60		
	Gates—extension,	3,926 75		
	Land—account Little River supply,	10,156 02		
	Buildings, fixtures and grounds,	2,087 95		
	Office equipment,	477 87		
	Shop equipment,	365 60		
	Utility equipment,	3,826 15		
	Miscellaneous construction (water rights),	140,698 96		
		$194,300 16		
	Less for city-owned meter returned to stock,	50 00		
KK.	Net aggregate construction charged, 1916,			194,250 16

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D.	Other Miscellaneous Earnings:—			
	a. Water used outside city:—			
	Fixture rates,	$150 00		
	Meter rates,	12,352 89		
			12,502 89	
	Total water rates collectible,		$446,147 40	
	b. Water used by water works (included in its operating expenses),		75 30	
	Total operating revenues,			446,222 70
E.	General appropriations,			.....
F.	From municipal departments,			.....
G.	From tax levy,			.....
H.	From bonds,			100,000 00
I.	From other sources:—			
	a. Non-operating income (sale of products, rentals, etc.),			3,954 53
J.	Total credited (including balance forward),			$666,525 53

LL.	Unclassified expenses,			.....
	Net total *charges*, 1916,			$501,457 65
MM.	Balance, Nov. 30, 1916:—			
	Inventory of stock and stores on hand,		$98,182 46	
	Cash in hands of City Treasurer:—			
	Lombard Reservoir fund,		800 00	
	Accounts Receivable:—			
	Committed to City Collector,—uncollected (includes Dec. 1st bills),	$63,869 85		
	Not yet committed to City Collector,	2,715 57		
			66,585 42	
				165,067 88
J.	Total (in balance with revenue),			$666,525 53

Disposition of balance. Carried forward.

O.	Net cost of works to date,			$5,579,236 92
P.	Bonded debt at date, { Ludlow supply,		$275,000 00	
	{ Little River supply,		1,932,000 00	
				$2,207,000 00
Q.	Value of sinking fund at date (Ludlow supply bonds),			$148,222 87
R.	Average rate of interest, { Ludlow supply bonds,			3.77%
	{ Little River supply bonds,			3.64%

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STATISTICS OF CONSUMPTION OF WATER.

(In revised form recommended by Committee of N. E. W. A. in 1913.)

1.	Year for which report is made,	1916
2.	Population—(Springfield district):—	
	a. Total—(Springfield, 105,780, and Wilbraham, 500) (estimated),	106,280
	b. On line of pipe (estimated),	104,962
	c. Supplied (estimated),	104,572
3.	Total number of active taps,	14,852
4.	Average number of persons per active tap (2*a*÷3),	7.16—
5.	Total number of metered taps,	14,517
6.	Per cent of active taps metered (5÷3),	97.74+
7.	Total water consumption is determined by Venturi meter on supply main at Provin Mountain reservoir.	
8.	Water supplied from Little river system during *mean year* covered by consumers' meters:—	

(Recorded by consumers' meters, as follows):—

		Gallons.	*Per Cent of Total (8-n).*
	In Springfield:—		
	a. For domestic uses,	1,447,844,000	35.71
	b. For commercial uses,	402,597,000	9.93
	c. For industrial uses,	756,719,600	18.66
	d. For institutional uses,	82,950,000	2.05
	e. For builders' uses,	6,475,100	.16
	f. For charitable uses (free),	18,044,500	.44
	g. For public uses (uncollectible) (17+% of such municipal services metered),	194,851,100	4.81
h.	Total in Springfield,	2,909,481,300	71.76
i.	Total in Wilbraham,	4,982,800	.12
j.	Total in Springfield district,	2,914,464,100	71.88
k.	Total outside Springfield district,	43,445,700	1.07
l.	Total recorded by consumers' meters,	2,957,909,800	72.95
m.	For unmetered sales, unmetered private fire supplies, unmetered public uses, and lost and unaccounted-for (*balance*),	1,097,070,200	27.05
n.	Total water supplied from Little river system during *mean year* covered by consumers' meters,	4,054,980,000	100.00

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9. Water supplied to Springfield district, 1916:—

a. Total for calendar year,	4,120,660,000 gallons
b. Percentage metered (8*j*+9*a*),	70.73 per cent
c. Total average per day (9*a*+365 days),	11,260,000 gallons
d. Average per day per active tap (9*c*+3),	758 gallons
e. Average per day per consumer (9*c*+2*c*),	108 gallons
f. Average per day per capita (9*c*+2*a*),	106 gallons

STATISTICS RELATING TO DISTRIBUTION SYSTEM.

MAINS.

1. Kind of pipe used:—wrought-iron cement-lined (formerly used by private aqueduct company and by city);—wrought-iron—for small and temporary mains,—and cast-iron and steel (used by city at present).
2. Sizes;—from one inch to fifty-four inches.
3. Extended during year (added to pipe table, including all changes, etc.), ... 26,921 feet
4. Discontinued during year (deducted from pipe tables, including all changes, etc.), . . . 3,133 feet
5. Total now in use (city, Indian Orchard, Wilbraham, and Ludlow), ... 223.02—miles
6. Cost of repairs per mile (including big breaks), $3.54
7. Number of leaks per mile (total leaks=39), . 0.17+
8. Length of pipes less than 4 inches in diameter, . 7.36— miles
9. Number of hydrants added during year (public =70, and private=0) (net), ... 70
10. Number of hydrants (public=1,806, and private =130), now in use (city, Indian Orchard, and Wilbraham), ... 1,936
11. Number of hydrants in Ludlow (public=19, private=108), now in use, ... 127
12. Number of stop gates added during year (public and private) (net), ... 271
13. Number of stop gates now in use, . . . 5,661
14. Number of gates smaller than 4-inch, . . 753
15. Number of blow-offs (air valves), . . . 99
16. Range of pressure on mains:—

	Maximum	Average
a. Main street level, ...	147 lbs.	140 lbs.
b. Hill section level, ...	87 lbs.	80 lbs.

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SERVICES.

17. Kind of pipe used:—lead (formerly used by private aqueduct company);—cement-lined wrought-iron, and tarred wrought-iron (formerly used by city);—galvanized wrought-iron, lead-lined wrought-iron, and cast-iron (used by city at present).
18. Sizes from ½ to 10 inches.
19. Extended during year (in feet).
20. Discontinued during year (in feet).
21. Total now in use (in miles).

NOTE.—Services paid for entirely by the consumers, and no special statistics kept of them.

22. Number of services added during year (net) (to December 1st), 606
23. Total services December 1, 1916, 15,248
    a. Active services, 14,852
    b. Metered services, 14,517
24. Average length of service.
25. Average cost of service.

(See note under 19, 20, 21.)

26. Number of meters added (net to December 1st), 574
27. Total meters December 1, 1916, 14,597
28. Percentage of active services metered, December 1, 1916, 97.74+per cent
29. Percentage of earnings from metered water (to December 1st), 97.32—per cent
30. Number of motors and elevators added and discontinued (net), —2
    a. Motors added, 0; discontinued, 4; = —4
    b. Elevators added, 3; discontinued, 1; = +2
31. Number of motors and elevators now in use, 406
    a. Motors, 68
    b. Elevators, 338

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APPENDIX II.

COMPARATIVE STATEMENT OF WATER RECEIPTS SINCE 1884.

(On annual basis of twelve months.)

Year.	Water Rates Charged—Gross Earnings. (*During the year, only.*)		Water Rates Collected. (*Including balances forward.*)	
	Totals.	Gain or Loss.	Totals.	Gain or Loss.
1885	$93,421 60	+$5,976 56	$90,848 05	+$5,262 34
1886	100,537 77	+ 7,116 17	97,298 78	+ 6,450 73
1887	108,140 94	+ 7,603 17	105,451 52	+ 8,152 74
1888	115,146 35	+ 7,005 41	112,581 21	+ 7,129 69
1889	126,220 72	+11,074 37	122,541 52	+ 9,960 31
1890*	133,553 28	+ 7,332 56	129,913 27	+ 7,371 75
1891	140,604 85	+ 7,051 57	136,985 11	+ 7,071 84
1892	150,515 67	+ 9,910 82	146,349 09	+ 9,363 98
1893	164,894 65	+14,378 98	160,936 78	+14,587 69
1894	167,376 11	+ 2,481 46	162,769 71	+ 1,832 93
1895	182,357 49	+14,981 38	178,421 15	+15,651 44
1896	194,069 28	+11,711 79	189,373 75	+10,952 60
1897	196,818 72	+ 2,749 44	192,132 58	+ 2,758 83
1898	209,183 12	+12,364 40	201,710 66	+ 9,578 08
1899	220,673 14	+11,490 02	213,061 24	+11,350 58
1900	225,798 96	+ 5,125 82	218,741 57	+ 5,680 33
1901*	233,227 98	+ 7,429 02	218,815 05	+ 73 48
1902*	231,594 98	— 1,633 00	223,903 08	+ 5,088 03
1903	245,358 59	+13,763 61	238,673 13	+14,970 05
1904	249,779 77	+ 4,421 18	244,767 77	+ 6,094 64
1905	259,133 06	+ 9,353 29	252,747 50	+ 7,979 73
1906*	263,746 17	+ 4,613 11	260,186 99	+ 7,439 49
1907*	267,263 78	+ 3,517 61	255,109 17	— 5,077 82
1908*	293,896 28	+26,632 50	291,108 15	+35,998 98
1909	302,230 17	+ 8,333 89	298,449 48	+ 7,341 33
1910	327,333 58	+25,103 41	322,845 84	+24,396 36
1911	344,591 64	+17,258 06	341,057 40	+18,211 56
1912*	341,515 25	— 3,076 39	333,607 69	— 7,449 71
1913	375,558 61	+34,043 36	359,274 81	+25,667 12
1914	397,823 84	+22,265 23	395,094 09	+35,819 28
1915*	393,394 68	— 4,429 16	395,046 41	— 47 68
1916	413,958 91	+20,564 23	411,423 13	+16,376 72

*See explanatory notes in annual reports for years indicated.

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APPENDIX III.

SERVICE TAPS AND SUPPLY AND DISTRIBUTION MAINS SINCE 1884.

Year.	Service Taps.		Distribution Mains.		Supply and Distribution Mains in Use. (Miles.)
	Total Number.	Net Increase.	Extensions. (Feet.)	Cost of Extensions.	
1885	4,237	224	10,014	$11,235 33	75 01
1886	4,519	282	18,993	14,158 71	78 65
1887	4,819	300	17,244	14,600 36	81 55
1888	5,147	328	13,877	14,038 56	84 97
1889	5,497	350	29,059	26,418 94	91 11
1890	5,770	273	9,962	7,833 06	92 28
1891	6,181	411	14,927	10,396 00	94 86
1892	6,633	452	24,853	16,253 21	98 63
1893	7,000	367	25,079	17,090 71	102 97
1894	7,482	482	20,280	13,491 16	117 21*
1895	7,900	418	32,368	25,302 47	123 65
1896	8,298	398	23,521	21,018 62	127 80
1897	8,721	423	39,108	22,349 41	134 71
1898	9,070	349	28,810	16,042 36	140 08
1899	9,456	386	20,851	10,069 22	143 21
1900	9,764	308	9,880	6,362 20	144 69
1901	10,034	270	8,668	5,174 62	146 22
1902	10,221	187	5,353	3,060 71	147 34
1903	10,471	250	16,425	13,147 42	150 44
1904	10,641	170	9,767	6,163 18	152 20
1905	10,946	305	20,309	17,290 22	154 67
1906	11,175	229	17,027	24,054 14	156 84
1907	11,385	210	20,099	114,117 98**	160 42
1908	11,706	321	19,047	72,635 91**	161 85
1909	12,134	428	30,177	111,153 39**	174 87*
1910	12,545	411	45,520	152,570 23**	182 74
1911	12,985	440	31,816	43,044 79**	188 87
1912	13,407	422	31,159	39,747 99	195 11
1913	13,692†	473†	54,043	74,272 30	205 31
1914	14,126	434	39,634	64,429 03	212 69
1915	14,642	516	34,244	43,009 57‡	218 51
1916	15,248	606	22,425	27,858 26	223 02

* The total of 117.21 miles of main and distribution pipe at end of 1894 includes 10.86 miles of "Ludlow Supply Main No. 2," laid in 1893 and 1894; and the total of 174.87 miles at end of 1909 includes 13.29 miles of "Little River Supply" pipe, laid in 1908-1909-1910.

** Amounts include *extension-cost* of "Circuit" mains, as follows:—1907=$93,911.77; 1908=$26,776.96; 1909=$91,900.00; 1910=$121,039.43; 1911=$4,693.65; leaving following balances for ordinary and improvement extensions:—1907=$20,206.21; 1908=$45,856.95; 1909=$19,253.39; 1910=$31,530.80; 1911=$38,351.14.

†Revised by actual count for total, and elimination of errors of earlier years due to evident oversight of taps abandoned.

‡Corrected.

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APPENDIX IV.

CLASSIFICATION OF CONSUMERS, DECEMBER 1, 1916.

Not including Ludlow Manufacturing Associates' private system in Ludlow Village.)

Classification.	Total, End of Year 1916.	Total, Beginning of Year 1916.	Increase or Decrease 1916.
Domestic:—			
Apartment Blocks,	806	764	+42
Dwellings (single),	5,882	5,726	+168
Dwellings (double),	332	328	+4
Dwellings (tenement),	6,504	6,314	+190
Tenements,	29,873	28,751	+1,122
Commercial:—			
Banks,	12	12	....
Business Blocks,	434	426	+8
Garages (public),	29	22	+7
Greenhouses,	10	11	—1
Hotels,	19	19	....
Restaurants,	93	91	+2
Saloons,	64	58	+6
Stables (public),	17	18	—1
Stores,	1,544	1,423	+121
Theaters,	5	5	....
Industrial:—			
Breweries,	3	3	....
Foundries,	18	19	—1
Gas Works,	1	1	....
Laundries (public),	54	55	—1
Manufactories,	127	127	....
Railroads,	4	4	....
Institutional:—			
Cemeteries,	6	6	....
Charitable Institutions,	12	12	....
Churches,	58	58	....
Colleges,	2	2	....
Court House,	1	1	....
Hospitals,	6	6	....
Jails,	1	1	....
Libraries,	4	4	....
Post Offices,	4	4	....
Schools (private),	12	12	....
State Militia Armory,	1	1	....
Truant School,	1	1	....
United States Armory,	1	1	....
Municipal (*Public Use*):—			
Drinking Fountains and Tanks,	27	27	....
Fire Department Stations,	13	13	....
Fire Hydrants,	1,825	1,755	+70
Fountains,	19	19	....
Parks,	23	23	....
Playgrounds,	9	8	+1
Police Department Stations,	2	2	....
Reduction Plant,	1	1	....
Sanitary,	1	1	....
Schools,	41	39	+2
Street Sprinkling Hydrants,	173	173	....
Fixtures:—			
Bath Tubs,	25,726	24,373	+1,353
Elevators,	338	336	+2
Motors,	68	72	—4
Urinals,	839	789	+50
Water Closets,	39,838	38,237	+1,601

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APPENDIX V.

CLASSIFICATION OF SERVICES, DECEMBER 1, 1916.

CLASSIFICATION.	Sizes of Services.												Total, End of Year 1916.	Total, Beginning of Year 1916.	Increase or Decrease, 1916.
	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	6"	8"	10"			
Revenue Services. *Within City.*															
Domestic Consumers,	8	108	8,902	3,198	318	88	4	2	7	2	..	..	12,637	12,178	+459
Domestic and Commercial Consumers,	1	7	170	221	72	38	5	5	9	3	..	..	531	493	+38
Commercial Consumers,	1	5	156	164	56	71	7	13	93	16	..	..	582	552	+30
Churches,	..	1	19	17	5	16	2	..	1	..	..	..	61	61	....
Total—called "Commercial,"	10	121	9,247	3,600	451	213	18	20	110	21	..	..	13,811	13,284	+527
Industrial Consumers,	..	2	44	53	28	58	16	22	122	84	11	3	443	459	—16
Institutional Consumers,	..	..	11	21	8	14	4	4	10	4	..	..	76	74	+2
Public Uses,	..	1	3	2	1	..	..	..	..	1	..	..	8	9	—1
Total within City,	10	124	9,305	3,676	488	285	38	46	242	110	11	3	14,338	13,826	+512
Outside City.															
Commercial Consumers, Little River Transmission Main,	..	..	6	..	..	..	..	..	..	..	..	..	6	6	..
Com'l Consumers, Ludlow,	..	5	92	29	1	2	1	..	5	..	..	..	135	126	+9
Com'l Consumers, Wilbraham,	..	..	36	26	2	5	..	..	..	..	..	..	69	69	..
Industrial Consumers, Ludlow Mfg. Co.'s System,	..	..	..	..	..	..	..	..	..	..	1	1	2	2	..
Wholesale Service, Agawam,	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..
Wholesale Service, East Longmeadow,	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..
Wholesale Service, Longmeadow	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..
Wholesale Service, West Springfield,	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..
Total outside City,	..	5	134	55	3	7	1	..	5	1	4	1	216	207	+9
Total Revenue Services,	10	129	9,439	3,731	491	292	39	46	247	111	15	4	14,554	14,033	+521

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CLASSIFICATION OF SERVICES, DECEMBER 1, 1916—(Concluded).

CLASSIFICATION.	Sizes of Services.												Total, End of Year 1916.	Total, Beginning of Year 1916.	Increase or Decrease, 1916.
	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	6"	8"	10"			
Non-Revenue Services.															
Private Use.															
Domestic Consumers,.....	..	..	4	..	..	..	..	..	..	..	..	..	4	4	..
Domestic and Commercial Consumers,.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Commercial Consumers,.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Churches,.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total—called "Commercial,"	..	..	4	..	..	..	..	..	..	..	..	..	4	4	..
Institutional Consumers,.....	..	..	1	2	1	..	..	..	..	..	..	..	4	4	..
Total Private Use in City...	..	..	5	2	1	..	..	..	..	..	..	..	8	8	..
Commercial Consumers, Ludlow,.....	..	..	1	..	..	..	..	..	11	..	..	..	12	12	..
Total Private Use,.....	..	..	6	2	1	..	..	..	11	..	..	..	20	20	..
Public (Municipal) Use.															
Buildings and Departments,...	..	9	33	18	25	16	2	11	29	8	1	..	152	146	+6
Drinking Fountains and Tanks,	..	3	12	5	..	2	..	..	..	..	..	..	22	22	..
Street Watering Hydrants, (Standpipes, etc.),*.....	..	..	..	..	..	..	143	..	..	..	..	..	143	143	..
Total Public Use,*.....	..	12	45	23	25	18	145	11	29	8	1	..	317	311	+6
Total Non-Revenue Services,.	..	12	51	25	26	18	145	11	40	8	1	..	337	331	+6
Total Classified Services,....	10	141	9,490	3,756	517	310	184	57	287	119	16	4	14,891	14,364	+527
Total Unclassified Services,.	1	8	238	57	14	18	..	3	13	4	1	..	357	278	+79
Total Services,*.....	11	149	9,728	3,813	531	328	184	60	300	123	17	4	15,248	14,642	+606

*Fire Hydrants, Flush Gates for sewer system, and Track Hydrants for street watering, not included under "Services" in records.

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APPENDIX VI.

CLASSIFICATION OF METERS, DECEMBER 1, 1916.

CLASSIFICATION.	Sizes of Meters.										Total, End of Year 1916.	Total, Beginning of Year 1916.	Increase or Decrease, 1916.
	½" or ⅝"	¾"	1"	1¼"	1½"	2"	3"	4"	6"	8"			
Revenue Meters.													
Within City.													
Domestic Consumers,	8,635	3,301	586	14	67	14	1	1	1	..	12,620	12,150	+470
Domestic and Commercial Consumers,	185	217	130	4	29	22	7	4	1	..	599	561	+38
Commercial Consumers,	118	200	125	4	37	68	32	21	12	..	617	566	+51
Churches,	24	16	10	1	8	1	..	1	..	..	61	61	..
Total—called "Commercial,"	8,962	3,734	851	23	141	105	40	27	14	..	13,897	13,338	+559
Industrial Consumers,	35	41	53	3	35	78	44	53	27	7	376	380	−4
Institutional Consumers,	10	19	17	2	7	9	6	5	2	..	77	72	+5
Public Uses,	4	3	..	..	..	1	..	1	..	..	9	10	−1
Total within City,	9,011	3,797	921	28	183	193	90	86	43	7	14,359	13,800	+559
Outside City.													
Commercial Consumers, Little River Transmission Main,	6	..	..	..	..	..	..	..	..	..	6	6	..
Commercial Consumers, Ludlow	105	15	4	..	..	2	..	..	..	..	126	117	+9
Commercial Consumers, Wilbraham,	28	5	..	2	5	..	..	..	..	..	40	40	..
Industrial Consumers, Ludlow Mfg. Co.'s System,	..	..	..	..	..	..	..	..	..	1	1	1	..
Wholesale Service, Agawam,	..	..	..	..	..	..	..	..	1	..	1	1	..
Wholesale Service, East Longmeadow,	..	..	..	..	..	..	..	..	1	..	1	1	..
Wholesale Service, Longmeadow	..	..	..	..	..	..	..	..	..	..	..	..	..
Wholesale Service, West Springfield,	..	..	..	..	..	..	..	..	..	1	1	1	..
Total outside City,	139	20	4	2	5	2	..	..	2	2	176	167	+9
Total Revenue Meters,	9,150	3,817	925	30	188	195	90	86	45	9	14,535	13,967	+568

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CLASSIFICATION OF METERS, DECEMBER 1, 1916—(Concluded).

CLASSIFICATION.	Sizes of Meters.										Total, End of Year 1916.	Total, Beginning of Year 1916.	Increase or Decrease, 1916.
	½" or ⅝"	¾"	1"	1¼"	1½"	2"	3"	4"	6"	8"			
Non-Revenue Meters.													
Private Use.													
Domestic Consumers,	4	..	..	..	..	..	..	..	..	..	4	4	..
Domestic and Commercial Consumers,	..	..	..	..	..	..	..	..	..	..	..	..	..
Commercial Consumers,	..	..	..	..	..	..	..	..	..	..	..	..	..
Churches,	..	..	..	..	..	..	..	..	..	..	..	..	..
Total—called "Commercial,"	4	..	..	..	..	..	..	..	..	..	4	4	..
Industrial Consumers,	..	..	..	..	..	..	..	..	..	..	..	..	..
Institutional Consumers,	..	1	2	..	1	..	..	..	..	..	4	4	..
Total Private Use,	4	1	2	..	1	..	..	..	..	..	8	8	..
Public (Municipal) Use.													
Buildings and Departments,	9	2	2	1	1	9	18	8	2	1	53	47	+6
Drinking Fountains and Tanks,	..	..	1	..	..	..	..	..	..	..	1	1	..
Street Watering Hydrants,	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Public Use,	9	2	3	1	1	9	18	8	2	1	54	48	+6
Total Non-Revenue Meters,	13	3	5	1	2	9	18	8	2	1	62	56	+6
Total Revenue and Non-Revenue Meters,	9,168	3,820	930	31	190	204	108	94	47	10	14,597	14,023	+574
Owned by Consumers,	9,159	3,815	929	30	189	193	93	86	45	9	14,548	13,974	+574
Owned by Water Department,	4	5	1	1	1	11	15	8	2	1	49	49	..

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APPENDIX VII.

SUMMARY OF MAIN PIPE LAID AND TAKEN OUT IN 1916.

(Including Changes and Corrections.)

Divisions.	1″	1½″	2″	4″	6″	8″	10″	20″	Totals
PIPE LAID									
Owned by Private Parties									
Wrought-iron,	482	610	1,408	..	..	..	..	..	2,500
Owned by City									
Wrought-iron,	23	154	939	..	..	..	..	..	1,116
Cast-iron,	..	..	..	784*	3,343	17,333	1,845	..	23,305*
Total Pipe Added,	505	764	2,347	784*	3,343	17,333	1,845	..	26,921*
PIPE TAKEN OUT OR ABANDONED									
Wrought-iron,	174	106	515	..	..	..	..	..	795
Cast-iron,	..	..	..	..	2,281	56	..	1	2,338
Total Pipe Deducted,	174	106	515	..	2,281	56	..	1	3,133
Net Pipe Added,	+331	+658	+1,832	+784*	+1,062	+17,277	+1,845	−1	+23,788*

*Includes 632 feet of parallel line for services only.

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APPENDIX VIII.

CHANGES IN TOTALS OF MAIN PIPE DURING 1916.

SUPPLY MAINS—(FEET.)

Size in Inches.	In Use First of Year.	Laid During Year.	Abandoned and Taken Up During Year.	Net Change for Year.	In Use Close of Year.
16	61	....	....	....	61
20	561	....	....	....	561
24	24,942	....	....	....	24,942
30	17,216	....	....	....	17,216
36	14,002	....	....	....	14,002
42	61,976	....	....	....	61,976
54	1,851	....	....	....	1,851
Total	120,609	....	....	....	120,609

DISTRIBUTION MAINS—(FEET.)

Size in Inches	In Use First of Year.	Laid During Year.	Abandoned and Taken Up During Year.	Net Change for Year.	In Use Close of Year.
1	4,084	505	174	+331	4,415
1¼	8,974	764	106	+658	9,632
1½	6,861	....	....	....	6,861
2	15,669	2,347	515	+1,832	17,501
3	437	....	....	....	437
4	65,299	784*	....	+784*	66,083
6	448,205	3,343	2,281	+1,062	449,267
8	220,681	17,333	56	+17,277	237,958
10	41,501	1,845	....	+1,845	43,346
12	69,475	....	....	....	69,475
16	51,030	....	....	....	51,030
20	7,904	....	1	—1	7,903
24	37,962	....	....	....	37,962
30	35,250	....	....	....	35,250
36	17,723	....	....	....	17,723
42	2,070	....	....	....	2,070
Total	1,033,125	26,921*	3,133	+23,788*	1,056,913†

* Includes 632 feet of parallel line for services only.

† Includes parallel lines for services only, as follows:—
4″=18,816 feet.
6″=10,741 feet.

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APPENDIX IX.

SUMMARY OF SUPPLY AND DISTRIBUTION MAIN PIPE IN USE DECEMBER 1, 1916.

SIZES.	Wrought-Iron.	Cement-Lined.	Cast-Iron.	Steel. L=*Lock-bar.* R=*Riveted.*	TOTALS.
1-inch.....	4,415	....	....	....	4,415
1¼-inch...	9,632	....	....	....	9,632
1½-inch...	6,861	....	....	....	6,861
2-inch.....	17,501	....	....	....	17,501
3-inch.....	437	....	....	....	437
4-inch.....	....	....	47,267	....	47,267
4-inch*....	....	....	18,816*	....	18,816*
6-inch.....	....	....	438,526	....	438,526
6-inch*....	....	....	10,741*	....	10,741*
8-inch.....	....	....	237,958	....	237,958
10-inch....	....	....	43,346	....	43,346
12-inch....	....	....	69,475	....	69,475
16-inch....	....	....	51,091	....	51,091
20-inch....	....	....	8,464	....	8,464
24-inch....	....	29,365	33,475	R 64	62,904
30-inch....	....	....	50,303	L 2,163	52,466
36-inch....	....	....	31,407	R 318	31,725
42-inch....	....	....	2,254	L 61,792	64,046
54-inch....	....	....	....	L 1,851	1,851
Feet.....	38,846	29,365	1,043,123	66,188	1,177,522
Miles....	7.36—	5.56+	197.56+	12.54—	223.02—

*For services only, not for fire protection.

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APPENDIX X.

SUMMARY OF GATES AND FIRE HYDRANTS SET AND TAKEN OUT IN 1916.

(Including Changes and Corrections.)

Divisions.	1″	1½″	2″	2½″	3″	4″	5″	6″	8″	10″	12″	24″	30″	Totals.
Gates Set, 1916, (Including Those Added),	..	5	31	1	1	16	..	144	82	10	4	2	..	296
Gates Taken Out, 1916, (Including Those Abandoned)	1	1	8	..	1	3	..	5	4	1	..	..	1	25
Net Gates Added, 1916,	—1	+4	+23	+1	..	+13	..	+139	+78	—9	+4	+2	—1	+271
Total Gates, Dec. 1, 1915,	..	..	..	..	..	..	..	..	..	..	..	..	..	5,390
Total Gates, Dec. 1, 1916,	..	..	..	..	..	..	..	..	..	..	..	..	..	5,661
Public Hydrants Set, 1916,	..	..	..	..	..	..	7	91	10	..	..	..	..	108
Public Hydrants Taken Out, 1916,	..	..	..	..	..	14		14	10	..	..	..	..	38
Net Public Hydrants Set, 1916,	..	..	..	..	..	—14	+7	+77	..	..	..	..	..	+70
Private Hydrants Set, 1916,	..	..	..	..	..		..	..	..	..	..		..	..
Total Hydrants, Dec. 1, 1915,	..	..	..	..	..	..	..	..	..	..	..	..	..	1,866
Total Hydrants, Dec. 1, 1916, (Not including Ludlow).	..	..	..	..	..	..	..	..	..	..	.	..	..	1,936

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APPENDIX XI.

CLASSIFICATION OF FIRE HYDRANTS

CONNECTED TO WATER WORKS SYSTEM, DECEMBER 1, 1916.

Divisions and Sizes	Springfield (City)	Indian Orchard	Wilbraham	Total (not including Ludlow)	Ludlow	Totals
Public:						
8 inch.....	77	..	..	77	..	77
6 inch.....	1,254	48	4	1,306	..	1,306
5 inch.....	18	50	1	69	..	69
4 inch.....	335	19	..	354	19	373
Total public..	1,684	117	5	1,806	19	1,825
Private:						
8 inch.....	..	..	..	..	..	..
6 inch.....	27*	23	..	50*	92	142*
5 inch.....	..	4	..	4	..	4
4 inch.....	70	6	..	76	16	92
Total private.	97*	33	..	130*	108	238*
Total public and private hydrants..	1,781*	150	5	1,936*	127	2,063*

* Includes one hydrant on Little River supply main, Westfield.

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APPENDIX XII.

CLASSIFICATION OF STREET WATERING HYDRANTS, WATERING TANKS AND DRINKING FOUNTAINS

CONNECTED TO WATER WORKS SYSTEM, DECEMBER 1, 1916.

Divisions	Springfield (City)	Indian Orchard	Total
Crane Hydrants For Cart Sprinklers			
Owned by Water Works,.....	85	8	93
Owned by Street Department,.....	46	3	49
Total Crane Hydrants (standpipes),.....	131	11	142
Track Hydrants For Car Sprinklers			
Owned by Street Department, ...	30	....	30
Special Hydrants For Street-Washing			
Owned by Street Department,.....	1	....	1
Total Street Watering Hydrants,.	162	11	173
Watering Tanks (for animals),.....	11	1	12
Drinking Fountains (for persons),..	13	2	15
Total Watering Tanks and Drinking Fountains,.....	24	3	27

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APPENDIX XIII.

SUMMARY OF TOTAL SUPPLY, 1916. SPRINGFIELD, MASS.

(For *Mean Year* Covered by Consumers' Meters.)

Little River Supply.

		Gallons.
Total Supply delivered from Provin Mountain Reservoir (as per Venturi meter),		4,054,980,000
Consumption recorded by Consumers' Meters, as follows:—		
In Springfield:—	Gallons.	
Private Consumers,	2,696,585,700	
Private Consumers (free) (charities),	18,044,500	
Public Uses (uncollectible) (17+% of such municipal services metered),	194,851,100	
Total in Springfield,	2,909,481,300	
In Wilbraham:—		
Private Consumers,	4,982,800	
Total within Springfield District,	2,914,464,100	
For Agawam:—		
Wholesale Service,	36,031,000	
For East Longmeadow:—		
Wholesale Service,	7,414,700	
For West Springfield:—		
Emergency Service,	.....	
Total outside Springfield District,	43,445,700	
Total Consumption recorded by Consumers' Meters, Little River Supply,		2,957,909,800
Unmetered Sales, Unmetered Private Fire Supplies, Unmetered Public Uses, and Lost and Unaccounted-for (27.05+%),		1,097,070,200

Ludlow Supply.

Consumption recorded by Consumers' Meters, as follows:—		
For Ludlow Manufacturing Associates:—	Gallons.	
Wholesale Service for Village System,	54,314,000	
For other Consumers in Ludlow:—		
Private Consumers and Town Uses (except fire hydrants, etc.),	7,854,500	
Total Consumption recorded by Consumers' Meters, Ludlow Supply,		62,168,500

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APPENDIX XIV.

LITTLE RIVER WATER SUPPLY, SPRINGFIELD, MASS.

TOTAL DRAUGHT BY METROPOLITAN DISTRICT, COMPRISING SPRINGFIELD, WILBRAHAM, EAST LONGMEADOW, LONGMEADOW,* AGAWAM AND WEST SPRINGFIELD.*

METERED AT PROVIN MOUNTAIN. IN MILLION GALLONS.

1916	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1	8.50	11.29	10.85	10.67	12.15	13.00	11.55	12.25	12.15	9.90	13.09	11.25
2	8.27	10.85	10.65	9.50	11.00	12.60	9.80	12.35	11.10	12.33	12.12	10.08
3	10.80	10.70	10.65	13.07	11.00	10.68	11.42	12.27	9.45	12.15	11.98	9.85
4	10.55	11.00	10.18	12.39	11.00	10.12	9.13	12.35	10.10	12.10	10.55	11.61
5	10.40	9.40	9.62	12.55	11.25	12.43	11.59	11.69	12.05	12.15	9.78	12.65
6	10.60	8.85	11.90	12.10	10.78	12.60	12.30	10.35	11.91	12.20	12.87	11.00
7	10.50	11.65	11.43	11.82	10.00	12.15	12.31	12.55	12.26	10.45	12.03	11.50
8	9.91	11.35	11.67	10.37	12.75	11.50	11.40	14.10	12.65	9.82	12.45	11.37
9	9.00	11.17	11.38	9.90	12.40	12.00	10.05	12.69	11.20	12.60	12.34	10.10
10	10.85	11.60	10.92	12.50	12.15	10.25	12.06	11.82	9.89	12.10	12.10	9.50
11	11.45	10.95	9.92	12.12	12.50	9.85	12.15	11.76	12.62	11.93	10.80	11.85
12	10.90	9.85	9.51	12.20	12.10	12.45	12.84	11.20	12.44	9.80	9.82	11.40
13	10.75	9.40	12.10	11.85	10.70	12.10	11.77	10.05	12.52	11.16	12.70	11.75
14	11.10	12.33	11.31	11.60	9.65	12.15	12.05	12.60	12.57	10.25	12.25	11.74
15	9.55	12.10	11.52	10.55	12.07	11.67	10.85	12.40	12.20	9.90	12.50	11.05
16	9.17	11.55	11.50	10.15	12.05	11.50	10.11	13.45	11.30	12.90	12.00	10.00
17	11.75	11.18	11.40	12.55	12.18	10.60	12.05	11.89	10.05	12.05	12.00	9.66
18	11.65	11.10	9.92	11.70	12.45	10.05	12.20	13.00	13.30	12.15	10.72	12.23
19	11.17	10.60	9.60	10.43	11.55	12.10	12.30	12.00	11.13	12.15	10.10	11.75
20	10.88	10.10	12.12	12.00	10.65	11.85	12.38	11.00	12.60	12.12	12.70	12.25
21	10.90	12.12	11.35	11.10	10.10	11.58	12.43	14.05	12.26	10.75	12.60	11.95
22	9.52	10.10	11.40	11.20	12.34	11.94	11.12	13.98	11.82	9.90	12.59	11.65
23	9.00	11.30	11.40	9.70	11.95	12.00	10.15	12.83	10.80	12.71	12.10	10.38
24	11.30	11.12	11.23	12.45	12.70	10.81	12.90	11.58	10.10	12.51	12.20	9.35
25	10.95	10.67	10.05	12.18	12.90	9.95	12.48	11.90	12.15	13.30	10.50	9.45
26	11.30	10.00	9.30	11.75	12.40	12.50	12.58	10.80	11.90	13.35	9.68	12.75
27	10.92	9.55	12.94	11.25	10.85	12.60	13.08	9.97	12.30	12.85	12.65	11.74
28	11.03	11.56	10.70	11.20	9.89	12.43	13.05	11.59	11.95	10.31	12.10	11.75
29	9.50	11.05	11.65	10.15	12.05	12.27	11.27	11.85	11.85	11.45	11.45	11.44
30	9.20	.....	12.25	8.70	10.26	12.05	10.24	11.75	10.57	13.47	9.27	9.32
31	11.36	.....	12.21	.....	12.42	.....	13.09	11.94	.....	12.49	.....	10.53
Total	322.73	314.49	342.63	339.70	358.24	349.78	362.69	374.01	349.19	363.30	350.04	342.90
Aver.	10.41	10.84	11.05	11.32	11.56	11.66	11.70	12.06	11.64	11.72	11.67	11.06

*Emergency connections only.

Total amount for 1916=4,169.70 million gallons.

Daily average=11.39 million gallons.

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APPENDIX XV.

LITTLE RIVER WATER SUPPLY, SPRINGFIELD, MASS.

Water Used by Town of East Longmeadow.

Metered at Springfield—E. Longmeadow Line. In Gallons.

1916	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	*16,400	15,400	15,000	*14,150	17,100	22,600	*21,750	26,100	28,600	*26,150	23,600	27,400
2	*16,400	*15,150	13,900	*14,150	16,900	19,400	*21,750	23,700	*25,400	23,300	23,700	*27,950
3	17,400	*15,150	13,400	14,800	16,400	*18,000	*17,850	25,100	*25,400	26,500	25,100	*27,950
4	19,300	15,900	*16,800	13,600	17,400	*18,000	*17,850	50,600	*25,400	25,900	*23,900	14,100
5	15,800	*16,000	*16,800	13,900	16,500	19,900	22,600	*25,150	25,100	26,300	*23,900	25,000
6	16,300	*16,000	16,400	15,300	*16,850	20,300	22,600	*25,150	23,400	26,000	23,900	24,200
7	15,400	15,100	15,100	13,800	*16,850	18,500	21,600	27,100	29,500	*31,000	23,800	23,900
8	*19,300	13,900	16,300	*15,050	17,300	17,300	*24,600	32,000	25,800	*31,000	24,200	21,500
9	*19,300	14,200	*14,700	*15,050	16,600	72,200	*24,600	23,900	*25,800	23,700	24,300	*23,300
10	16,300	14,300	*14,700	15,200	18,300	*26,300	20,100	22,400	*25,800	29,300	22,500	*23,300
11	16,400	15,400	*14,300	15,400	24,500	*26,300	24,900	25,300	26,000	*25,350	*22,900	23,400
12	16,000	*15,250	*14,300	14,900	17,500	24,900	30,200	*22,400	24,000	*25,350	*22,900	22,400
13	15,400	*15,250	16,500	13,200	*19,050	19,200	26,900	*22,400	23,700	27,200	25,900	20,900
14	18,000	17,100	13,700	14,300	*19,050	17,800	27,900	23,300	27,400	*27,200	22,300	*22,525
15	*18,200	17,400	14,600	*16,350	16,600	20,900	*25,650	29,500	23,800	*27,200	23,900	*22,525
16	*18,200	14,800	14,600	*16,350	15,000	15,600	*25,650	43,400	*26,550	27,100	22,200	*22,525
17	17,500	17,000	19,000	18,600	15,700	*17,050	22,000	36,800	*26,550	28,200	22,500	*22,525
18	15,900	16,300	*17,700	*15,050	17,600	*17,050	22,900	35,200	29,100	28,700	*25,750	22,300
19	16,600	*18,000	*17,700	*15,050	18,800	18,700	23,000	*35,750	29,500	26,200	*25,750	29,900
20	16,200	*18,000	15,700	15,000	*19,150	16,600	21,500	*35,750	23,300	25,100	26,800	14,800
21	18,800	*16,750	15,100	11,100	*19,150	17,300	20,000	45,500	22,700	*25,500	23,800	20,900
22	*16,600	*16,750	15,100	*17,150	17,600	17,000	*24,750	38,800	24,400	*25,500	25,500	22,000
23	*16,600	14,700	14,700	*17,150	14,800	18,600	*24,750	30,200	*24,450	24,000	22,100	*22,434
24	16,200	14,900	15,100	15,400	17,800	*19,050	31,000	26,800	*24,450	30,000	22,200	*22,433
25	*16,400	*15,200	*19,450	15,900	21,800	*19,050	26,300	26,500	23,200	29,500	*23,650	*22,433
26	*16,400	*15,200	*19,450	16,000	19,700	21,300	25,700	*34,050	24,000	25,800	*23,650	21,700
27	16,100	*15,200	17,000	14,700	*21,350	24,400	25,100	*34,050	26,400	23,400	24,900	22,800
28	17,900	17,500	14,600	15,900	*21,350	20,500	24,100	30,900	27,900	*25,300	25,500	22,600
29	*16,850	16,400	13,800	*17,000	*20,350	19,700	*24,900	31,100	24,300	*25,300	*24,050	22,900
30	*16,850	.....	13,400	*17,000	*20,350	21,200	*24,900	30,200	*26,150	23,800	*24,050	*24,233
31	16,600	.....	14,100	.....	20,300	.....	29,300	28,700	.....	29,700	.....	*24,233
Total	526,100	458,200	484,000	456,500	567,700	645,700	751,700	962,800	773,550	824,550	724,200	711,566
Aver.	16,971	15,800	15,613	15,217	18,313	21,523	24,248	30,735	25,785	26,600	24,140	22,953

N. B.—Starred figures are daily averages computed from readings taken two or more days apart.

Total amount for 1916=7,876,566 gallons. Daily average=21,520 gallons.

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APPENDIX XVI.

LITTLE RIVER WATER SUPPLY, SPRINGFIELD, MASS.

Water Used by Town of Agawam.

Metered on 42" line—Feeding Hills. In Gallons.

1916	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	*84,455	*95,636	*91,338	*93,000	82,800	142,000	*101,850	93,000	124,500	*115,300	99,400	99,100
2	*84,454	*95,636	*91,339	*93,000	96,500	139,800	*101,850	64,100	*122,750	57,000	77,700	*86,800
3	*84,455	*95,636	*91,338	*93,000	86,300	*130,350	104,700	73,100	*122,750	107,400	96,600	*86,800
4	*84,455	*95,636	*91,339	*93,000	89,000	*130,350	61,300	73,000	98,100	115,100	*98,950	80,800
5	*84,455	*95,636	*91,338	*92,233	88,800	135,900	60,200	*81,550	103,300	94,100	*98,950	82,300
6	*84,455	*95,636	*91,339	*92,233	*103,450	134,400	78,400	*81,550	128,800	118,400	156,200	78,800
7	*84,455	*95,636	*91,338	*92,234	*103,450	108,600	108,300	103,000	94,600	*106,800	78,100	73,800
8	*84,455	*95,636	*91,339	*60,425	91,200	90,000	*87,900	139,300	100,600	*106,800	73,300	74,600
9	*84,454	*95,636	*91,338	*60,425	97,400	*104,550	*87,900	64,400	*76,850	114,700	95,300	*80,800
10	*84,455	*95,636	*91,339	*60,425	90,100	*104,550	88,000	67,500	*76,850	119,100	88,300	*80,800
11	*84,455	*95,636	*91,338	*60,425	105,800	125,900	85,000	59,700	108,400	117,200	*84,750	*75,100
12	*84,455	*95,636	*91,339	89,300	99,500	127,800	101,900	*113,900	141,200	70,500	*84,750	*75,100
13	*84,455	*95,636	*91,338	82,100	*108,850	164,000	74,900	*113,900	76,900	108,800	132,200	76,600
14	*84,455	*95,636	*91,339	77,900	*108,850	116,000	89,800	118,000	96,100	*114,400	138,500	*90,675
15	*84,455	*95,637	*91,338	*88,900	76,700	120,300	*79,600	102,600	137,300	*114,400	82,400	*90,675
16	*84,454	*95,637	*91,339	*88,900	122,600	94,100	*79,600	106,400	*148,750	82,100	84,200	*90,675
17	*84,455	*95,637	*91,338	101,000	87,600	*118,700	76,600	106,600	*148,750	101,600	77,200	*90,675
18	*84,455	*95,637	*91,339	91,700	73,800	*118,700	88,600	129,200	86,400	104,300	*85,950	*90,675
19	*84,455	*95,637	*91,338	89,800	126,200	116,300	90,600	*105,500	144,300	94,700	*85,950	*90,675
20	*84,455	*95,637	*91,339	82,300	*124,700	124,700	90,400	*105,500	227,400	106,500	152,600	*90,675
21	*84,455	*95,637	*91,338	87,300	*124,700	117,000	89,500	137,500	135,400	*117,500	102,500	*90,675
22	*84,455	95,637	*91,339	*94,000	145,700	123,200	*66,900	170,300	35,700	*117,500	125,300	*90,675
23	*84,454	*91,700	*91,338	*94,000	120,500	127,100	*66,900	94,600	*115,200	68,500	86,700	*90,675
24	*84,455	*85,960	*91,339	64,200	120,500	*128,300	127,400	124,800	*115,200	80,700	84,900	*90,675
25	*84,455	*85,960	*91,338	82,900	110,300	*128,300	47,500	99,800	109,400	81,300	*84,800	*90,675
26	*84,455	*85,960	*91,338	103,000	136,300	128,300	62,200	*129,100	110,300	100,800	*84,800	*79,616
27	*84,455	*85,960	*96,800	151,900	*116,650	164,800	91,100	*129,100	105,700	94,100	95,200	*79,617
28	*84,455	*85,960	*96,800	102,500	*116,650	146,800	76,100	121,300	120,500	*108,850	89,200	*79,617
29	*84,455	96,400	93,300	*91,300	134,800	157,700	*76,050	95,900	110,400	*108,850	*81,750	*79,617
30	*84,454	.....	*76,900	*91,300	125,400	136,800	*76,050	77,500	*115,300	89,500	*81,750	*79,616
31	*84,455	.....	*76,900	.....	116,000	.....	91,300	121,400	.....	82,300	.....	*79,617
Total	2,618,100	2,721,900	2,815,500	2,644,700	3,331,100	3,805,300	2,608,400	3,203,100	3,438,700	3,119,100	2,888,200	2,617,200
Aver.	84,455	93,860	90,823	88,157	107,455	126,843	84,142	103,326	114,623	100,616	96,273	84,426

N. B.—Starred figures are daily averages computed from readings taken two or more days apart.

Total amount for 1916—35,811,300 gallons. Daily average—97,845 gallons.

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APPENDIX XVII.

LITTLE RIVER WATER SUPPLY, SPRINGFIELD, MASS.

Water Used by Town of West Springfield.

Metered at King's Highway. In Gallons.

1916	NOV.
1	.....
2	.....
3	.....
4	.....
5	.....
6	.....
7	.....
8	.....
9	.....
10	.....
11	*501,943
12	*501,943
13	456,312
14	385,995
15	358,317
16	348,592
17	329,891
18	*414,046
19	*414,047
20	469,028
21	412,925
22	385,247
23	380,758
24	.....
25	.....
26	.....
27	.....
28	.....
29	.....
30	.....
31	.....
Total	5,359,044
Aver.	412,234

N. B.—Starred figures are daily averages computed from readings taken two or more days apart.

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APPENDIX XVIII.

LITTLE RIVER WATER SUPPLY, SPRINGFIELD, MASS.

Water Used in City of Springfield.

Metered at Provin Mountain. In Million Gallons.

1916	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	8.41	11.18	10.74	10.56	12.05	12.84	11.42	12.13	12.00	9.76	12.97	11.12
2	8.18	10.74	10.55	9.46	10.88	12.44	9.67	12.26	10.95	12.25	12.02	9.97
3	10.69	10.60	10.55	12.97	10.90	10.53	11.30	12.17	9.30	12.01	11.85	9.74
4	10.44	10.88	10.07	12.29	10.89	9.97	9.05	12.23	9.98	11.96	10.43	11.51
5	10.29	9.28	9.51	12.45	11.15	12.27	11.51	11.58	11.92	12.03	9.66	12.54
6	10.49	8.73	11.79	11.99	10.66	12.45	12.20	10.24	11.76	12.05	12.69	10.90
7	10.40	11.55	11.33	11.72	9.88	12.02	12.18	12.42	12.13	10.31	11.92	11.40
8	9.82	11.24	11.56	10.30	12.64	11.39	11.29	13.93	12.52	9.68	12.35	11.27
9	8.91	11.07	11.27	9.83	12.28	11.83	9.94	12.60	11.10	12.46	12.22	10.00
10	10.74	11.49	10.81	12.42	12.04	10.12	11.94	11.73	9.79	11.95	11.99	9.40
11	11.34	10.85	9.82	12.04	12.37	9.70	12.04	11.67	12.49	11.79	10.20	11.75
12	10.79	9.73	9.40	12.10	11.98	12.30	12.71	11.06	12.27	9.70	9.21	11.30
13	10.65	9.29	11.99	11.76	10.57	11.92	11.67	9.91	12.41	11.02	12.08	11.65
14	11.00	12.21	11.21	11.51	9.52	12.01	11.93	12.46	12.45	10.11	11.70	11.63
15	9.46	11.99	11.41	10.44	11.97	11.53	10.75	12.27	12.04	9.76	12.04	10.94
16	9.08	11.44	11.40	10.04	11.92	11.40	10.01	13.30	11.12	12.79	11.54	9.89
17	11.64	11.08	11.29	12.43	12.08	10.46	11.94	11.75	9.87	11.92	11.57	9.54
18	11.54	10.98	9.81	11.59	12.36	9.91	12.09	12.84	13.19	12.02	10.19	12.12
19	11.06	10.49	9.49	10.32	11.40	11.96	12.18	11.86	10.96	12.03	9.58	11.63
20	10.78	9.98	12.01	11.91	10.51	11.72	12.27	10.86	12.35	11.99	12.05	12.14
21	10.80	12.01	11.24	11.00	9.96	11.44	12.32	13.87	12.10	10.60	12.07	11.84
22	9.43	9.98	11.29	11.08	12.18	11.80	11.03	13.77	11.76	9.75	12.05	11.53
23	8.91	11.20	11.30	9.58	11.82	11.85	10.06	12.70	10.66	12.62	11.61	10.27
24	11.19	11.02	11.12	12.36	12.56	10.66	12.74	11.43	9.96	12.40	12.10	9.24
25	10.84	10.57	9.94	12.08	12.77	9.80	12.41	11.77	12.02	13.19	10.39	9.34
26	11.19	9.91	9.19	11.63	12.24	12.35	12.49	10.64	11.77	13.22	9.58	12.65
27	10.82	9.44	12.83	11.09	10.71	12.42	12.96	9.81	12.17	12.74	12.52	11.64
28	10.93	11.45	10.59	11.08	9.75	12.26	12.95	11.44	11.80	10.20	11.98	11.64
29	9.41	10.93	11.54	10.04	11.90	12.09	11.17	11.72	11.71	11.31	11.35	11.34
30	9.11	.....	12.16	8.59	10.12	11.89	10.14	11.64	10.43	13.36	9.16	9.22
31	11.25	.....	12.12	.....	12.28	.....	12.97	11.79	.....	12.38	.....	10.42
Total	319.59	311.31	339.33	336.60	354.34	345.33	359.33	369.85	344.98	359.36	341.07	339.57
Aver.	10.31	10.74	10.95	11.22	11.43	11.51	11.59	11.93	11.50	11.59	11.37	10.95

N. B.—About eighty houses in Wilbraham supplied with Little River water.
Total amount for 1916=4,120.66 million gallons. Daily average=11.26 million gallons.

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APPENDIX XIX.

LUDLOW RESERVOIR SUPPLY, SPRINGFIELD, MASS.

WATER USED BY LUDLOW MANUFACTURING ASSOCIATES.

METERED AT LUDLOW. IN GALLONS.

1916	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	*61,500	141,000	180,000	*130,000	147,000	185,000	*144,000	178,000	300,000	*206,000	214,000	394,000
2	*61,500	142,000	143,000	*130,000	190,000	182,000	*144,000	242,000	*173,333	277,000	253,000	*186,500
3	134,000	128,000	135,000	166,000	159,000	*175,000	*125,500	187,000	*173,333	272,000	286,000	*186,500
4	139,000	129,000	*109,000	175,000	158,000	*175,000	*125,500	225,000	*173,334	269,000	*195,000	149,000
5	128,000	*166,500	*109,000	147,000	155,000	192,000	165,000	*192,000	188,000	297,000	*195,000	226,000
6	127,000	*166,500	179,000	154,000	*125,000	160,000	169,000	*192,000	282,000	247,000	240,000	213,000
7	128,000	143,000	184,000	147,000	*125,000	178,000	192,000	236,000	284,000	*204,500	234,000	218,000
8	*92,000	136,000	184,000	*124,000	165,000	178,000	*162,500	204,000	228,000	*204,500	228,000	227,000
9	*92,000	148,000	210,000	*124,000	169,000	194,000	*162,500	202,000	*177,000	243,000	219,000	*162,500
10	176,000	152,000	187,000	143,000	162,000	*153,000	103,000	182,000	*177,000	252,000	225,000	*162,500
11	153,000	153,000	*145,500	155,000	180,000	*153,000	100,000	175,000	199,000	*214,000	*188,000	220,000
12	147,000	*113,000	*145,500	147,000	169,000	176,000	88,000	*172,000	212,000	*214,000	*188,000	152,000
13	139,000	*113,000	156,000	175,000	*138,500	198,000	170,000	*172,000	198,000	277,000	259,000	351,000
14	127,000	157,000	153,000	152,000	*138,500	175,000	171,000	188,000	227,000	*201,000	417,000	221,000
15	*101,500	143,000	131,000	*119,500	158,000	183,000	*162,500	227,000	209,000	*201,000	406,000	236,000
16	*101,500	146,000	152,000	*119,500	159,000	*180,000	*162,500	168,000	*194,500	253,000	418,000	*182,000
17	146,000	134,000	180,000	158,000	150,000	*208,000	171,000	213,000	*194,500	225,000	411,000	*182,000
18	165,000	143,000	*128,000	*136,500	163,000	*208,000	177,000	260,000	253,000	212,000	*298,500	248,000
19	150,000	*117,000	*128,000	*136,500	181,000	262,000	188,000	*240,000	233,000	189,000	*298,500	229,000
20	136,000	*117,000	162,000	131,000	*131,000	204,000	208,000	*240,000	244,000	210,000	427,000	261,000
21	148,000	231,000	150,000	169,000	*131,000	184,000	200,000	295,000	236,000	*167,500	398,000	243,000
22	*102,500	198,000	146,000	*127,000	162,000	163,000	*150,000	302,000	250,000	*167,500	399,000	330,000
23	*102,500	205,000	155,000	*127,000	165,000	165,000	*150,000	211,000	*209,000	203,000	410,000	*174,000
24	138,000	218,000	167,000	150,000	177,000	*154,000	273,000	203,000	*209,000	203,000	476,000	*174,000
25	142,000	187,000	*140,500	146,000	181,000	*154,000	184,000	252,000	265,000	226,000	*308,000	*174,000
26	142,000	*145,500	*140,500	150,000	199,000	171,000	194,000	*182,000	270,000	269,000	*308,000	232,000
27	158,000	*145,500	140,000	154,000	*160,000	167,000	216,000	*182,000	263,000	240,000	387,000	217,000
28	139,000	217,000	146,000	145,000	*160,000	182,000	168,000	309,000	274,000	*163,500	400,000	209,000
29	*124,000	171,000	162,000	*128,000	*153,500	169,000	*149,000	303,000	269,000	*163,500	*326,000	214,000
30	*124,000	....	153,000	*128,000	*153,500	186,000	*149,000	215,000	*206,000	233,000	*326,000	*166,000
31	136,000	....	155,000	....	160,000	....	188,000	255,000	....	212,000	....	*166,000
Total	3,961,000	4,506,000	4,756,000	4,294,000	4,925,000	5,414,000	5,112,000	6,804,000	6,771,000	6,926,000	9,338,000	6,696,000
Aver.	128,000	155,000	153,000	143,000	159,000	180,000	165,000	219,000	226,000	223,419	311,267	216,000

N. B.—Starred figures are daily averages computed from readings taken two or more days apart.
Total amount for the year=69,503,000 gallons. Daily average=189,899 gallons.

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APPENDIX XX.

MUNICIPAL WATER WORKS, SPRINGFIELD, MASS.

TABLE OF RAINFALL—1916.

IN INCHES.

Location	Borden Brook Reservoir, Granville	West Parish Filters, Westfield	Provin Mountain Reservoir, Agawam	Ludlow Reservoir		Administration Building, Springfield	U. S. Armory, Springfield
				Gate House, Ludlow	Filters, Ludlow		
Records by—	Caretaker, S.W.W.	Superintendent, S.W.W.	Caretaker, S.W.W.	Caretaker, S.W.W.	Caretaker, S.W.W.	City Engineer.	U. S. A.
January,.....	2.40	2.01	1.52	1.60	1.57	1.08	1.40
February,.....	6.79	6.75	6.12	5.23	5.14	2.99	4.99
March,.....	5.45	3.72	3.04	3.58	3.56	1.40	3.22
April,.....	4.19	3.50	3.26	3.34	3.38	2.18	3.49
May,.....	3.64	3.48	3.83	3.18	2.98	2.33	3.04
June,.....	5.85	5.27	4.40	4.21	4.14	4.01	3.98
July,.....	6.26	4.44	5.06	3.97	3.87	4.28	4.58
August,.....	2.65	2.11	2.62	2.66	2.50	2.76	2.31
September,.....	6.70	6.72	4.36	4.97	5.15	5.59	4.54
October,.....	1.56	1.54	1.33	1.14	1.01	1.52	1.32
November,.....	4.44	3.62	3.62	2.57	2.59	3.01	2.70
December,.....	3.70	3.91	3.42	3.51	3.51	2.32	3.08
Totals,.....	53.63	47.07	42.58	39.96	39.40	33.47	38.65
Mean,.....	4.47	3.92	3.55	3.33	3.28	2.79	3.22

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APPENDIX XXI.

LITTLE RIVER WATER SUPPLY, SPRINGFIELD, MASS.

Operating Details of West Parish Filters—1916.

E. C. Cotton, Superintendent.

L. G. Carlton, Assistant Engineer.

FILTERS SCRAPED

MONTH	Number	Cubic Yards of Sand Removed			Depth in Inches		
		Maximum	Minimum	Average	Maximum	Minimum	Average
January	7	175	140	150	2.5	2.0	2.1
February	0						
March	0						
April	0						
May	0						
June	3	140	140	140	2.0	2.0	2.0
July	1	140	140	140	2.0	2.0	2.0
August	4	140	70	114	2.0	1.0	1.6
September	4	420	105	210	6.0	1.5	3.0
October	6	175	140	146	2.5	2.0	2.1
November	1	*1820	*1820	*1820	*26.0	*26.0	*26.0
December	2	140	140	140	2.0	2.0	2.0
Year	28	*1820	0	238	*26.0	0	3.4

FILTER RUNS AFTER SCRAPINGS

MONTH	Number Ending in	Million Gallons Filtered			Duration in Days		
		Maximum	Minimum	Average	Maximum	Minimum	Average
January	2	45.07	33.31	39.19	22	19	20
February	0						
March	0						
April	3	182.26	177.22	180.35	99	89	98
May	3	342.65	184.25	252.80	148	100	128
June	0						
July	0						
August	4	107.14	80.24	99.83	58	30	46
September	3	138.39	55.35	85.80	27	24	25
October	5	85.30	33.81	60.33	35	18	27
November	2	147.57	43.65	95.61	55	28	42
December	4	124.78	97.83	115.54	57	37	47
Year	26	342.65	33.31	77.46	148	18	35

*In November in Filter No. 2, the sand was wholly removed and washed.

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Operating Details of West Parish Filters—1916—Concluded.

FILTER RUNS AFTER RAKINGS

MONTH	Number Ending in	Million Gallons Filtered			Duration in Days		
		Maximum	Minimum	Average	Maximum	Minimum	Average
January	5	82.10	13.86	39.76	36	12	22
February	0						
March	0						
April	0						
May	0						
June	3	112.83	108.18	111.14	65	57	62
July	1	148.79	148.79	148.79	79	79	79
August	3	164.43	25.44	108.26	88	14	56
September	1	60.84	60.84	60.84	37	37	37
October	1	62.50	62.50	62.50	39	39	39
November	0						
December	2	53.83	8.80	31.31	24	7	15
Year	16	164.43	8.80	46.47	88	7	26

FILTERS RESANDED

NUMBER	Cubic Yards of Sand Replaced			Depth in Inches		
	Maximum	Minimum	Average	Maximum	Minimum	Average
*2	*3080	1820	2450	*44	26	35

MILLIONS OF GALLONS

Filtered	To Sand Washer	Per Cent
4163.95	20.841	0.50

COST PER MILLION GALLONS DELIVERED TO CITY

	Supervision and Laboratory	Sand Handling	Coagulant	Grounds and Buildings	Equipment	Miscellaneous	Increase in Inventory	Total
Labor	$0.84	$0.61	$0.10	$0.92	$0.38	$0.06	.....	$2.91
Materials	.17	.19	.94	.13	.40	.02	—$0.36	1.49
Total	$1.01	$0.80	$1.04	$1.05	$0.78	$0.08	—$0.36	$4.40

*In November in Filter No. 2, the sand was wholly removed and washed.

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APPENDIX XXII.

LITTLE RIVER WATER SUPPLY,

SPRINGFIELD, MASS.

E. C. COTTON, Superintendent.

OPERATING COSTS OF WEST PARISH FILTERS — 1916.

L. G. CARLTON, Assistant Engineer.

CLASSIFICATION.	JAN.	FEB.	MAR.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPT.	OC.	NOV.	DEC.	YEARLY TOTALS.
Care of,—													
Grounds,	$83.31	$283.37	$263.00	$173.12	$189.11	$136.12	$229.52	$282.87	$141.64	$135.73	$9.14	$101.84	$1,978.77
Buildings,	12.75	25.05	98.71	28.36	23.75	7.50	.....	1.25	.....	63.22	42.08	84.50	387.17
Equipment,	68.15	44.86	57.25	84.62	97.75	91.01	74.91	50.25	88.28	57.39	46.48	72.92	633.87
Telephone,	8.50	.....	.....	9.38	.....	4.75	.....	1.25	.....	2.50	2.50	70.78	99.66
Supervision,	266.91	225.37	225.37	248.38	225.37	225.37	248.38	225.37	248.38	225.37	225.37	248.58	2,838.22
Laboratory,	100.04	48.00	48.00	51.00	48.00	48.00	60.00	48.00	60.00	51.00	54.00	67.50	683.54
Coagulant,—													
Hauling,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Storing,	.....	.....	.....	.....	16.13	.....	.....	.....	.....	.....	.....	.....	16.13
Manufacturing,	.....	.....	.....	.....	.....	.....	66.13	92.52	83.95	80.28	41.63	40.80	405.31
Stableman,	60.00	48.00	48.00	60.00	48.00	48.00	64.50	54.00	67.50	54.00	54.00	67.50	673.50
Watchmen,	136.00	112.00	108.00	80.00	112.00	112.00	142.00	120.00	150.00	120.00	120.00	150.00	1,462.00
Ice Harvest,	83.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	83.50
Vacation Pay Roll,	24.00	52.50	36.00	.....	.....	.....	.....	.....	.....	30.90	7.50	13.50	164.40
Total,	$843.16	$839.15	$884.33	$784.86	$760.11	$672.75	$885.44	$825.51	$839.75	$820.39	$602.70	$917.92	$9,626.07
Filter No. 1,—													
Cleaning,	$65.12	.....	.....	$6.38	.....	.....	$53.89	$6.11	.....	$77.70	.....	$78.68	$287.88
Resanding,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Filter No. 2,—													
Cleaning,	69.87	.....	.....	5.63	.....	$52.00	.....	6.44	$52.71	26.18	$252.82	9.95	475.60
Resanding,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	307.60	163.21	470.81
Filter No. 3,—													
Cleaning,	47.81	.....	.....	4.50	.....	46.62	.....	5.88	214.69	.....	7.20	58.20	384.90
Resanding,	.....	.....	.....	.....	.....	.....	.....	.....	139.54	.....	.....	.....	139.54
Filter No. 4,—													
Cleaning,	.....	.....	.....	.....	$6.38	.....	.....	42.13	16.24	74.02	.....	8.50	147.27
Resanding,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Filter No. 5,—													
Cleaning,	95.32	.....	.....	.....	6.38	.....	56.00	.....	35.00	100.73	.....	10.83	304.26
Resanding,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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Filter No. 6,—													
Cleaning,	90.03	.....	.....	.....	.....	6.38	.....	51.25	51.30	69.00	47.65	8.58	324.19
Resanding,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total Pay Rolls,	$1,211.31	$839.15	$884.33	$751.37	$772.87	$777.75	$995.33	$937.32	$1,349.23	$1,168.02	$1,217.97	$1,255.87	$12,160.52
Bills for Mdse. Bought,—													
Grounds and Buildings,	$32.19	$7.49	$74.05	$32.88	$85.45	$33.24	$0.99	.....	$88.16	$11.16	$109.84	$70.06	$545.51
Freight and Express,	9.06	.15	6.67	2.85	.81	9.78	.....	.....	5.03	.....	.32	3.71	38.38
Coagulant,	.....	.....	.....	.....	3,902.90	.....	.....	.....	.....	.....	2.08	5.00	3,909.98
Stock and Tools,	38.36	16.26	115.41	3.88	36.12	201.92	7.86	$22.74	28.76	4.92	161.75	3.00	640.98
Sand Washer, Hose, Valves, Fittings,	.....	30.00	27.00	15.55	14.12	.....	.....	.....	.....	.....	.....	691.75	778.42
Laboratory Supplies,	83.21	10.97	81.82	70.30	27.90	17.64	70.80	23.15	20.23	121.01	47.59	87.24	661.86
Live Stock Account,	20.50	18.43	29.45	50.02	16.15	16.40	19.80	21.90	21.65	24.80	35.60	28.17	302.87
Repairs to Equipment,	.....	.....	.....	.....	.....	20.98	7.25	26.08	25.25	30.08	121.25	21.88	252.22
Auto Account,	108.65	.....	4.09	.....	31.40	66.41	13.98	36.57	51.00	13.40	86.78	46.51	463.79
N. E. Telephone,	8.94	.85	17.48	.....	9.94	19.98	.....	16.48	8.54	.....	19.98	.....	102.19
Miscellaneous,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total Bills,	$300.91	$84.15	$355.97	$175.48	$4,124.79	$386.35	$120.68	$146.92	$248.62	$210.32	$585.19	$956.82	$7,696.20
Grand Total, Pay Rolls and Bills,	$1,512.22	$923.30	$1,240.30	$926.85	$4,897.66	$1,164.10	$1,116.01	$1,084.24	$1,597.85	$1,378.34	$1,803.16	$2,212.69	$19,856.72
Million Gallons as Metered at Provin Mountain,	322.73	314.49	342.63	339.70	358.24	349.78	362.69	374.01	349.19	363.30	350.04	342.90	4,169.70

Total Bills and Pay Rolls,	$19,856.72
Increase in Inventory,	1,507.82
Net Total Cost of Filter Operation—1916,	$18,348.90
Net Total Cost of Plant and Accessories,	$380,701.06
Interest at 4%,	$13,228.04
Total Cost of Operation, including Interest,	$31,576.94

Net Cost per Million Gallons Delivered to City, Operation and Maintenance only,	$4.40
Cost, including Operation, Maintenance and Interest, per Million Gallons,	$7.57
Cost per Million Gallons, Exclusive of Charges on Grounds, Buildings, Auto and Stable,	$3.71

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STREETS AND ENGINEERING

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REPORT

OF THE

DEPARTMENT OF STREETS AND ENGINEERING

FOR THE FISCAL YEAR ENDING NOVEMBER 30, 1916

ADMINISTRATIVE

SPRINGFIELD, MASS., December 26, 1916.

To the Honorable City Council:—

I have the honor to submit herewith in compliance with the provisions of Chapter 19, Section 5, of the Revised Ordinances, the annual report of the Superintendent of Streets and Engineering, together with the reports of the several division deputies, for the fiscal year ending November 30, 1916.

ENGINEERING.

During the past season a very good beginning has been made on the surveys for a contour map of the city. The importance of this work can hardly be over-estimated as, without the data now being collected, comprehensive studies for future development cannot be carried on either by this department or by the City Planning Commission. So rapidly is the demand increasing for streets, sewers, water, and other public utilities, not only in East Springfield but the entire eastern portion of the city, that I believe the force now employed on this work should be doubled and the work pushed to an early completion.

STREETS.

Considering the extraordinary conditions which have obtained the past year, affecting both labor and materials, very satisfactory progress has been made in street improvements.

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The attention of the department has been directed largely to the heavier traveled through streets, to side streets leading off Main street, and to renewals of some of the older pavements in the center of the city. The completion of the pavement on the Boston road to the Wilbraham line should be appreciated by all, not only by those who may have occasion to use the road, but by every citizen who may now feel assured that all the main arteries of travel into the city are in a condition that compares favorably with the excellent connecting highways under the jurisdiction of the State.

Secondary lines of approach from East Longmeadow and Chicopee should receive immediate attention, particularly Liberty street which without question is destined to become an important thoroughfare. This street, three rods in width, hardened only with a poor gravel, should be widened to at least four rods to permit a double car track, and paved.

Traffic census, taken annually during July and August for the past three years, shows the rapid increase not only in the number but the weight of vehicles using the public streets in the city. The combined north and south traffic passing through the four underpasses has increased twenty-four (24) per cent in three years, which considered with the present congested down-town streets goes far toward proving the necessity of wider thoroughfares through the business section.

The old method of street cleaning by machine brooms and squeegees has been superseded by power flushing, which has not only reduced the cost but improved conditions, as shown by cleaner streets and less dust.

BRIDGES.

The timber decking on the North End Bridge laid about twenty-five years ago must be replaced during the coming season. This bridge sustains an average traffic of 3,200 vehicles per day, which wears through the spruce planking as heretofore laid in two years, and it would therefore seem imperative that some other wearing surface be employed.

Recent survey and studies indicate that by renewals and strengthening of certain members and reducing slightly the allowable weight of trolley cars, the bridge has sufficient strength to withstand the additional weight of a wearing surface of wood block.

Surveys made early in the season showed that certain members in the floor system and lower chord of the Abbe Avenue Bridge had deteriorated fifty (50) per cent from action of locomotive gases. As the structure has been built but seven years and cleaned and painted within four years, it was deemed advisable to renew the weakened members and protect

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all parts exposed to damaging gases by gunite, which work is now being executed.

Other bridges have been frequently inspected and with the exception of the Old Toll Bridge are in satisfactory condition.

SEWERS.

The demand for sewers during the past few years has been largely confined to short extensions and laterals which has called for no large appropriation, but the rapid growth toward the east will make an early consideration of the problem imperative.

Provisions should be made to care for the surface water in the East Springfield district, surveys for which are now under way.

No plan has yet been made to care for a large part of the area east of the Carlisle brook, a section fast being developed, and this will require increased expenditures in the very near future.

I desire to take this opportunity to express my appreciation for the continued loyalty of the several heads of departments and their assistants, and especially to His Honor the Mayor, Alderman Martens and Councilman Caswell, the Board of Supervisors, without whose counsel and co-operation the achievements of the year would have been impossible.

Respectfully submitted,

F. H. CLARK,

Superintendent of Streets and Engineering.

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INVENTORY.

DEPARTMENT OF STREETS AND ENGINEERING.

Lands.

Ashes and Garbage Station, State street,	$12,000.00	
City Yard, Logan street,	10,800.00	
City Yard, Pecousic avenue, east side,	19,000.00	
City Yard, Pecousic avenue, west side,	11,000.00	
City Yard, Summer street,	153,000.00	
Gravel Bank, Boston road,	200.00	
Gravel Bank, Five Mile pond,	4,500.00	
Gravel Bank, Island pond,	300.00	
Trap Rock Quarry, Westfield,	1,000.00	
Salable Land:		
67 Arch street,	1,000.00	
Carew street,	300.00	
Carew street, between Baltimore and Fleetwood streets,	600.00	
Locust street,	2,070.00	
Page boulevard,	400.00	
Pecousic avenue, between Pecousic and South streets,	5,000.00	
Fulton street, Menard lot,	3,919.00	
Fulton street, Barrett lot,	3,806.00	
Fulton street, King lot,	3,153.00	
Fulton street, Albert lot,	6,219.00	
Abbe avenue crossing,	10,400.00	
Birnie avenue extension,	1,000.00	
West street dump,	10,000.00	
Emery street, Dunn lot,	20,876.00	
		$280,543.00

Buildings and Structures.

Pecousic avenue, east and west sides,	$23,800.00	
Incinerator, Logan street,	17,000.00	
Incinerator, North End,	7,000.00	
Emery street shop,	25,000.00	
State street buildings,	3,800.00	
Summer street buildings,	30,100.00	
Arch street,	2,000.00	
Trap rock bins and trestle,	10,000.00	
		$118,700.00

Equipment.

Asphalt plant,	$7,118.00	
Ashes, rubbish and garbage division,	.....	
Automobiles,	4,270.00	
Blacksmith shop,	1,295.00	
Carpenter shop,	1,125.90	
Engineering division,	2,719.78	
Forestry division,	2,233.90	

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Garage,	$170.00	
Harnesses and fittings,	1,065.30	
Highway and road machinery,	8,969.25	
Horses,	12,290.00	
Laboratory,	621.31	
Machine shop,	191.80	
Motorcycles,	500.00	
Motor trucks,	19,176.81	
Office furniture, etc.,	1,835.50	
Patterns,	278.00	
Paint shop,	.....	
Sewer division,	404.00	
Sleighs and sleds,	1,278.65	
Stables and yards,	3,038.10	
Steam rollers,	21,825.00	
Street cleaning division,	1,578.80	
Street lighting division,	1,189.00	
Wagons and carts,	8,231.25	
Water carts,	1,655.80	
		$103,061.15

SMALL TOOLS AND PERISHABLE EQUIPMENT.

Small Tools and Perishable Equipment,	$12,156.99	$12,156.99

SUPPLIES AND MATERIALS.

Car tickets,	52.00	
Granite curbing account,	10,688.64	
Granite block account,	1,468.90	
In stock at Summer street yard,	28,610.62	
In stock at Emery street, South End yard, Logan street, and State street,	9,231.30	
In stock at Indian Orchard yard,	47.63	
In stock at Sixteen Acres,	86.03	
Forestry stock,	710.10	
Wood block account,	2,718.50	
		$53,613.72

RECAPITULATION.

Lands,	$280,543.00
Buildings and Structures,	118,700.00
Equipment,	103,061.15
Small Tools and Perishable Equipment,	12,156.99
Supplies and Materials,	53,613.72
Grand Total,	$568,074.86

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STATEMENT OF EXPENDITURES FROM APPROPRIATIONS.

Title of Account.	Original Appropriation.	Credit Transfers.	Debit Transfers.	Total Amount Available.	Expended.	Unexpended Balance.
WS00—Personal services,	$535,587.52	$22,653.40	$6,583.20	$551,657.72	$551,651.47	$6.25
WS10—Services other than personal,	151,171.06	13,300.69	50.28	164,421.47	164,117.19	304.28
WS20—Fixed charges and contributions,	1,820.00	450.00	.....	2,270.00	2,237.62	32.38
WS30—Supplies,	30,303.59	.20	27,271.32	3,032.47	4,027.85	995.38*
WS40—Materials,	241,233.35	28,157.82	191,949.09	77,442.08	70,314.75	7,127.33
WS50—Equipment,	25,971.44	15,102.50	6,678.18	34,395.76	33,738.28	657.48
WS60—Lands, structures, capital outlay,	23,255.00	5,390.46	.....	28,645.46	27,912.93	732.53
WS215—Stock,	14,558.28	219,511.00	31,276.11	202,793.17	202,793.17	.....
Credits available for re-appropriation,	.....	50,969.17	49,950.00	1,019.17	.....	1,019.17
	$1,023,900.24	$355,535.24	$313,758.18	$1,065,677.30	$1,056,793.26	$8,884.04

*Indicates an Overdraft.

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SPECIAL FUND ACCOUNTS.

Title of Account.	Balance from 1915.	Appropriation.	Credit Transfers.	Debit Transfers.	Total Amount Available.	Expended.	Unexpended Balance.
Plainfield street bridge,	.....	$13,251.63	.....	.....	$13,251.63	$13,070.66	$180.97
Garbage disposal, State street,	.....	4,034.37	.....	.....	4,034.37	3,651.99	382.38
Pecousic avenue,	.....	3,040.24	.....	.....	3,040.24	.....	3,040.24
Rubbish disposal, West street,	.....	139.93	.....	.....	139.93	.....	139.93
	.....	$20,466.17	.....	.....	$20,466.17	$16,722.65	$3,743.52

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NON-REVENUE ACCOUNTS.

Title of Account.	Balance from 1915.	Appropriation.	Credit Transfers.	Debit Transfers.	Total Amount Available.	Expended.	Unexpended Balance.
Dwight street underpass,	.....	$27,142.55	.....	.....	$27,142.55	.....	$27,142.55
Water street underpass,	.....	72,643.99	.....	.....	72,643.99	$3,642.59	69,001.40
Hillman street extension,	.....	1,999.53	.....	.....	1,999.53	143.77	1,855.76
Dwight and Willow streets extension,	.....	11,017.90	.....	.....	11,017.90	9,981.03	1,036.87
Fulton street widening,	.....	56,439.75	.....	.....	56,439.75	35,058.17	21,381.58
Water street widening,	.....	4,100.00	.....	.....	4,100.00	15.00	4,085.00
	.....	$173,343.72	.....	.....	$173,343.72	$48,840.56	$124,503.16

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RECAPITULATION OF COST OF WORK PERFORMED.

LABOR, MATERIAL, EQUIPMENT AND OTHER CHARGES.

	Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.
Sewers,	$30,653.99	$1,112.72	$12,287.19	$1,356.65	$12,151.17	$2,347.58	$709.78	$51.07	.....	$1,486.01	$62,156.11
Garbage,	25,347.20	785.59	1.49	.....	4,434.96	16,780.46	1,191.61	.....	.....	1,277.76	49,769.07
Ashes and refuse,	57,018.92	11,013.28	.31	3,312.40	8,069.05	12,559.78	.....	.....	.....	2,882.10	94,955.84
Highways,	89,396.84	53,400.79	135,859.95	18,856.70	30,136.03	416.75	3,811.11	4,483.26	$1,247.10	4,186.27	341,794.80
Bridges,	11,745.95	3,203.44	15,776.85	2,652.54	1,905.34	33.19	195.93	70.33	115.45	543.31	36,242.33
Sidewalks and curbing,	14,711.66	8,378.56	32,403.06	58.67	7,626.51	111.10	29.30	.....	72.25	690.55	64,081.66
Sprinkling streets,	1,571.63	2,981.63	.18	4,634.01	1,569.62	.....	617.28	.....	.....	65.60	11,439.90
Oiling,	3,067.52	896.36	18,263.36	.....	992.35	8.50	1,780.80	.....	.....	140.78	25,099.67
Street cleaning,	77,860.85	27,137.56	411.35	150.00	8,859.80	3,564.14	454.21	.....	.....	4,006.76	122,444.67
Lighting,	.35	.....	6.90	129,056.57	3,581.04	.....	.20	.....	.....	.....	132,645.06
Forestry,	9,241.34	886.94	767.88	142.77	6,360.04	639.90	156.00	.....	308.50	421.85	18,425.22
Shops,	149.96	5.68	5.24	.....	19.37	2.38	.50	.....	.....	5.79	188.92
Stables and yards improvements,	6,045.77	477.94	2,922.98	26,758.00	.....	22.82	96.51	6.24	11.70	244.52	36,586.48
Services rendered other departments,	3,926.02	.....	.....	257.52	.....	.....	.....	.....	.....	.....	4,183.54
Outside,	290.04	13.06	2,923.94	423.05	36.47	13.18	378.38	29.22	30.85	4.58	4,142.77
Administrative autos,	1,717.73	.....	862.94	959.48	186.37	.....	.....	.....	.....	.....	3,226.52
Grand total,	$332,745.77	$109,798.55	$221,993.57	$188,618.36	$85,928.12	$36,549.78	$9,371.56	$4,640.12	$1,785.85	$15,955.88	$1,007,882.56

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RECONCILIATION OF "EXPENDITURES FROM APPROPRIATIONS" TO AMOUNT OF "COST OF WORK PERFORMED."

"Cost of Work Performed" as per preceding statement,.....		$1,007,382.56
Deduct		
Charge for "Depreciation of Equipment" not included in charges against appropriation,	$15,955.88	
Overhead and equipment expense over applied,.	2,631.15	18,587.03
		$988,795.53
Add		
Land damages not charged to Expense,.....	$5,100.00	
Purchase and manufacture of small tools,.....	7,897.26	
Purchase and manufacture of equipment,.....	27,458.74	
Material used not charged to completed work,	955.76	
Balance of Adjustment Account,.....	207.92	
Unpaid Bills of 1915,.....	154.84	
Increase in Material and Supplies Inventory:—		
Inventory December 1, 1916,..... $53,613.72		
Inventory December 1, 1915,.... 27,390.51		
	26,223.21	67,997.73
Expenditures from appropriations (See Statement).		$1,056,793.26

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SEWERS.	Cost of Work Performed. Labor, Material, Equipment, and Other Charges.											Total Work Units.	Unit Cost.
CONSTRUCTION. CITY COST.	Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.		
Vitrified clay pipe,	$13,297.24	$340.34	$7,381.61	$604.67	$5,161.18	$264.25	$282.63	$8.94	.....	$788.59	$28,029.45*	19,599	$1.43
Concrete,	1,507.02	78.93	394.74	86.96	643.18	42.90	8.48	5.75	.....	69.61	2,837.57*	.....	.....
Wellholes,	762.55	44.17	816.11	.....	254.22	66.16	26.73	.70	.....	83.17	2,003.81	98	20.45
Manholes,	284.47	17.97	328.14	.....	77.73	32.69	24.95	.40	.....	11.86	778.21	13	59.86
Flush gates,	.....	.....	.....	260.53	.....	.....	.....	.....	.....	.....	260.53	11	23.68
Total cost,	$15,851.28	$481.41	$8,920.60	$952.16	$6,136.31	$406.00	$292.79	$15.79	.....	$853.23	$33,909.57	.....	.....
*Includes the cost of wellholes, manholes, and flushgates.													
CONSTRUCTION. ASSESSABLE COST.													
Wellholes,	$37.09	$0.70	$23.29	.....	$17.58	$2.00	$5.30	$0.35	.....	$1.67	$87.98	.....	.....
Inspecting and engineering,	66.21	.....	.....	.....	13.20	.....	.....	.....	.....	1.98	81.39	.....	.....
Total cost,	$103.30	$0.70	$23.29	.....	$30.78	$2.00	$5.30	$0.35	.....	$3.65	$169.37	.....	.....
MAINTENANCE, REPAIRING. CITY COST.													
Vitrified clay pipe,	$128.77	$12.70	$26.29	.....	$52.05	$14.49	$11.30	$1.51	.....	$5.93	$253.04	.....	.....
Concrete,	16.84	.....	2.60	.....	8.79	2.88	.....	.....	.....	.79	31.90	.....	.....
Brick,	12.77	.....	2.48	.....	5.35	.88	3.00	.....	.....	.59	25.02	.....	.....
Cement,	12.79	1.40	.91	.....	5.60	.99	.....	.....	.....	.60	22.29	.....	.....
Manholes,	156.76	16.87	220.87	.....	57.92	45.50	5.13	.....	.....	5.58	508.63	.....	.....
Wellholes,	710.73	49.96	1,196.05	.....	248.31	166.11	23.30	.78	.....	26.92	2,422.16	.....	.....
Flush gates,	.....	.....	.....	$404.49	.....	.....	.....	.....	.....	.....	404.49	.....	.....
Total cost,	$1,038.66	$80.93	$1,449.15	$404.49	$378.02	$230.85	$42.73	$2.29	.....	$40.41	$3,667.53	.....	.....

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CLASSIFICATION OF EXPENSE.—*Continued.*

SEWERS.—Continued.	Cost of Work Performed.												
	Labor, Material, Equipment, and Other Charges.											Total Work Units.	Unit Cost.
MAINTENANCE, Assessable Cost.	Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.		
Wellholes,	$26.55	$1.05	$12.22	.....	$11.05	.....	$3.90	.....	.....	$1.16	$55.93	.....	.....
Private drains (construction),	4,042.80	144.05	1,606.78	.....	1,686.03	$106.81	268.99	$27.30	.....	190.18	3,072.44	.....	.....
Repairing and relaying,	400.28	35.66	89.06	.....	164.50	16.35	19.06	4.94	.....	18.66	748.51	.....	.....
Construction to curb or special work,	476.02	1.68	121.99	.....	231.82	8.18	18.88	.....	.....	22.32	880.89	.....	.....
Cleaning private drains,	88.16	4.87	3.65	.....	33.65	14.98	13.13	.40	.....	4.13	162.97	.....	.....
Miscellaneous,	9.57	.....	.....	.....	4.50	2.70	.....	.....	.....	.45	17.22	.....	.....
Total cost,	$5,042.88	$187.31	$1,833.70	.....	$2,131.55	$148.97	$323.96	$32.64	.....	$236.95	$9,937.96	.....	.....
MAINTENANCE, FLUSHING.													
Total cost,	$1,780.44	.....	$2.59	.....	$716.31	$1,293.26	$38.20	.....	.....	$77.23	$3,908.03	.....	.....
MAINTENANCE, CLEANING.													
Vitrified clay pipe,	$1,004.84	$345.04	$1.01	.....	$493.25	$15.55	$4.25	.....	.....	$45.85	$1,909.79	.....	.....
Concrete,	28.20	.....	.....	.....	15.22	5.42	.....	.....	.....	1.34	50.18	.....	.....
Brick,	1,426.33	8.38	.58	.....	761.71	289.84	.....	.....	.....	67.22	2,504.06	.....	.....
Manholes,	15.64	5.95	3.68	.....	4.91	.....	2.00	.....	.....	.75	32.93	.....	.....
Outlets,	82.58	3.00	.35	.....	31.60	2.48	.....	.....	.....	3.93	123.94	.....	.....
Inlets,	11.07	.....	.....	.....	4.82	.68	.....	.....	.....	.47	17.04	.....	.....
Total cost,	$2,568.66	$362.37	$5.62	.....	$1,311.51	$263.97	$6.25	.....	.....	$119.56	$4,637.94	.....	.....
MAINTENANCE.													
Miscellaneous,	$4,268.77	.....	$52.24	.....	$1,446.69	$2.53	$0.50	.....	.....	$154.98	$5,925.71	.....	.....
Total cost,	$4,268.77	.....	$52.24	.....	$1,446.69	$2.53	$0.50	.....	.....	$154.98	$5,925.71	.....	.....
Grand total, Sewers,	$30,653.99	$1,112.72	$12,287.19	$1,356.65	$12,151.17	$2,347.58	$709.73	$51.07	.....	$1,486.01	$62,156.11	.....	.....

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CLASSIFICATION OF EXPENSE.—*Continued.*

GARBAGE DISPOSAL.	Cost of Work Performed. Labor, Material, Equipment, and Other Charges. Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.	Total Work Units.	Unit Cost.
												lbs.	
Garbage collection,.....	$22,723.47	$719.09	$1.49	.....	$3,775.85	$16,730.46	$1,188.86	.....	.....	$1,153.02	$46,297.24	23,955,039	$0.0019
Garbage disposal,.....	2,618.73	66.50	.....	.....	659.11	.....	2.75	.....	.....	124.74	3,471.83	.....	.....
Total cost,.....	$25,347.20	$785.59	$1.49	.....	$4,434.96	$16,730.46	$1,191.61	.....	.....	$1,277.76	$49,769.07	.....	.....
ASHES AND REFUSE DISPOSAL.													
Ashes,.....	$44,810.71	$10,957.98	$0.31	.....	$6,040.36	$8,619.95	.....	.....	.....	$2,260.31	$72,689.62	32,087 lbs.	$2.265
Rubbish,.....	12,208.21	55.30	.....	$3,312.40	2,028.69	4,039.83	.....	.....	.....	621.79	22,266.22	6,075 lbs.	3.665
Total cost,.....	$57,018.92	$11,013.28	$0.31	$3,312.40	$8,069.05	$12,659.78	.....	.....	.....	$2,882.10	$94,955.84	.....	.....
Grand total, Ashes, Garbage and Refuse Disposal,.....	$82,366.12	$11,798.87	$1.80	$3,312.40	$12,504.01	$29,390.24	$1,191.61	.....	.....	$4,159.86	$144,724.91	.....	.....
HIGHWAYS.													
CONSTRUCTION. CITY COST.													
Water-bound macadam,...	$2,410.31	$1,953.14	$27.68	.....	$761.15	$10.23	$4.00	$12.95	$62.30	$114.17	$5,355.93	.....	.....
Bituminous macadam,.....	11,709.20	13,060.81	19,666.07	$2.68	3,812.12	54.43	489.22	1,059.25	266.55	539.80	50,660.13	.....	.....
Wood blocks,.....	2,415.31	655.90	897.31	4,168.22	762.55	2.88	44.55	13.25	65.25	114.87	9,139.59	.....	.....
Brick,.....	5,405.88	1,781.73	10,459.82	1,331.30	1,715.10	17.92	10.20	24.75	93.00	257.27	21,096.97	.....	.....
Brick between tracks,.....	502.45	89.60	142.86	.....	163.30	.....	.....	.....	7.20	24.57	929.98	.....	.....
Fences,.....	21.67	.....	4.29	7.00	11.22	.....	.....	.....	.....	.99	45.17	.....	.....
Gravel,.....	3,702.12	1,980.83	18.08	.....	1,214.80	80.85	133.33	.....	.....	182.22	7,312.23	.....	.....
Asphalt,.....	2,191.71	513.80	3,939.01	.....	752.42	4.25	38.18	90.70	66.15	100.63	7,696.85	.....	.....
Concrete mixture,.....	17,675.72	7,703.86	12,374.81	9,091.24	5,582.35	6.57	2,360.49	47.10	513.70	837.34	56,193.18	.....	.....
Culvert,.....	746.79	8.72	90.07	.....	370.95	40.74	40.00	.....	.....	37.10	1,334.37	.....	.....
Total cost,.....	$46,781.16	$27,748.39	$47,619.50	$14,600.44	$15,146.46	$217.87	$3,119.97	$1,248.00	$1,074.15	$2,208.46	$159,764.40	.....	.....

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CLASSIFICATION OF EXPENSE.—*Continued.*

HIGHWAYS.—Continued	Cost of Work Performed.												
	Labor, Material, Equipment, and Other Charges.											Total Work Units.	Unit Cost.
CONSTRUCTION. ASSESSABLE COST.	Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.		
Bituminous macadam,	$158.26	$112.99	$393.89	.....	$73.61	.....	$31.00	$41.80	.....	$7.50	$819.05	.....	.....
Wood blocks between tracks,	111.53	21.70	6.95	$708.78	34.90	.....	.....	.....	.....	5.24	889.10	.....	.....
Granite blocks,	4,743.05	4,023.95	20,477.54	2,315.51	1,495.58	$8.75	110.05	47.95	$142.85	224.18	33,589.41	.....	.....
Concrete mixture,	2.97	1.40	95.58	.....	.90	.....	.....	.....	.....	.14	100.99	.....	.....
Total cost,	$5,015.81	$4,160.04	$20,973.96	$3,024.29	$1,604.99	$8.75	$141.05	$89.75	$142.85	$237.06	$35,398.55	.....	.....
MAINTENANCE. CITY COST.													
Water-bound macadam,	$3,830.59	$2,812.08	$4,977.13	$1.00	$1,685.97	$50.98	$64.65	$456.17	.....	$178.54	$14,057.06	.....	.....
Water-bound macadam between tracks,	92.80	51.94	217.22	.....	36.18	.....	.....	17.20	.....	4.19	419.53	.....	.....
Bituminous macadam,	19,442.37	9,915.51	48,872.39	8.34	6,342.64	77.19	230.78	2,087.19	.....	889.40	87,865.81	.....	.....
Bituminous macadam between tracks,	302.00	159.17	381.88	.....	163.55	.....	12.00	69.58	.....	14.44	1,102.62	.....	.....
Wood blocks,	726.97	253.91	2,266.43	.....	328.50	3.61	.....	.....	.....	34.04	3,613.46	.....	.....
Granite blocks,	1,166.05	1,098.83	79.40	907.20	364.15	5.94	32.85	35.35	.....	53.76	3,743.53	.....	.....
Brick,	410.36	154.38	179.15	.....	142.91	.....	.....	.....	.....	19.05	905.85	.....	.....
Bithulithic,	20.32	5.83	20.49	.....	6.31	.....	.....	1.64	.....	.92	55.51	.....	.....
Gravel,	5,181.54	4,449.22	2,991.01	.....	2,137.46	1.98	142.26	18.48	$30.10	244.86	15,196.91	.....	.....
Fences,	215.74	57.85	72.45	11.53	80.03	.52	.....	.....	.....	9.53	447.65	.....	.....
Asphalt,	681.28	140.90	1,668.59	157.80	197.88	.65	.....	52.68	.....	30.56	2,930.34	.....	.....
Asphalt between tracks,	141.86	51.07	295.73	.....	34.32	.....	.....	7.25	.....	6.43	536.66	.....	.....
Miscellaneous,	520.30	37.53	44.59	141.55	261.15	1.89	10.80	.43	.....	36.28	1,054.52	.....	.....
Concrete mixture,	103.28	29.05	22.12	.....	31.20	.....	.....	6.88	.....	4.69	197.17	.....	.....
Rocmac,	41.40	22.92	50.41	.....	14.53	.....	.....	5.68	.....	1.84	136.78	.....	.....
Signs,	411.44	.....	280.99	4.55	161.44	42.23	6.95	.....	.....	18.16	925.76	.....	.....
Glutrin-bound macadam,	34.07	26.18	329.80	.....	17.34	.....	15.00	.....	.....	1.53	423.87	.....	.....
Total cost,	$33,322.37	$19,266.32	$62,749.78	$1,231.97	$12,005.56	$184.94	$515.29	$2,758.48	$30.10	$1,548.22	$133,613.03	.....	.....

CLASSIFICATION OF EXPENSE.—*Continued.*

HIGHWAYS.—Continued	Cost of Work Performed.												
	Labor, Material, Equipment, and Other Charges.											Total Work Units.	Unit Cost.
MAINTENANCE. ASSESSABLE COST.	Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.		
Water-bound macadam,...	$546.26	$453.50	$337.37	.....	$179.94	.....	.....	$103.06	.....	$24.31	$1,644.44	.....	.....
Water-bound macadam between tracks,.....	50.98	31.50	25.45	.....	16.39	.....	.....	11.43	.....	2.22	137.97	.....	.....
Bituminous macadam,....	1,318.88	729.35	1,809.61	.....	389.82	.....	$10.00	176.48	.....	59.49	4,493.63	.....	.....
Bituminous macadam between tracks,.....	471.34	324.66	886.55	.....	145.31	$1.98	23.30	58.68	.....	20.87	1,932.69	.....	.....
Wood blocks,.....	593.39	230.53	589.83	.....	206.03	.54	.....	.....	.....	27.03	1,647.35	.....	.....
Wood blocks between tracks,.....	335.32	117.90	403.28	.....	111.32	.64	.....	.....	.....	15.11	983.57	.....	.....
Granite blocks,.....	201.15	95.67	109.26	.....	74.52	.....	.....	.....	.....	8.99	489.59	.....	.....
Brick,.....	194.68	81.45	100.00	.....	72.34	1.22	.....	.....	.....	8.81	458.50	.....	.....
Brick between tracks,.....	30.06	2.07	.45	.....	11.52	.....	.....	.....	.....	1.41	45.51	.....	.....
Bitulithic,.....	51.48	14.00	46.07	.....	16.71	.54	.....	3.41	.....	2.30	134.51	.....	.....
Hassam,.....	76.93	23.80	26.85	.....	23.52	.....	.....	.....	.....	3.50	154.60	.....	.....
Gravel,.....	31.61	20.10	3.60	.....	13.33	.....	1.50	2.48	.....	1.44	74.06	.....	.....
Asphalt,.....	271.98	88.49	161.58	.....	80.85	.27	.....	12.65	.....	12.34	628.16	.....	.....
Asphalt between tracks,...	18.81	6.02	11.59	.....	4.56	.....	.....	.84	.....	.85	42.67	.....	.....
Miscellaneous,.....	84.63	7.00	5.22	.....	32.86	.....	.....	18.00	.....	3.86	151.57	.....	.....
Total cost,.....	$4,277.50	$2,226.04	$4,516.71	.....	$1,379.02	$6.19	$34.80	$387.03	.....	$192.53	$13,018.82	.....	.....
Grand total, Highways	$89,396.84	$53,400.79	$135,859.95	$18,856.70	$30,136.03	$416.75	$3,811.11	$4,483.26	$1,247.10	$4,186.27	$341,794.80	.....	.....
BRIDGES.													
CONSTRUCTION.													
Plainfield Street,.....	$7,448.89	$2,930.00	$12,959.39	$1,513.35	$1,034.72	$29.37	$54.23	$66.67	$115.45	$344.86	$26,496.98	.....	.....
Total cost,.....	$7,448.89	$2,930.00	$12,959.39	$1,513.35	$1,034.72	$29.37	$54.23	$66.67	$115.45	$344.86	$26,496.98	.....	.....

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CLASSIFICATION OF EXPENSE.—*Continued.*

BRIDGES.—Continued. MAINTENANCE.	Cost of Work Performed. Labor, Material, Equipment, and Other Charges. Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.	Total Work Units.	Unit Cost.
Sundry bridges.													
Roadway,	$400.34	$97.88	$173.28	$57.83	$62.84	.....	$32.00	.....	.....	$18.30	$842.42	.....	.....
Old Toll Bridge.													
Roadway,	768.23	60.68	758.59	432.47	169.71	$1.50	56.80	.....	.....	36.37	2,284.35	.....	.....
Approach,	13.80	.....	7.88	.....	1.48	.....	.....	.....	.....	.55	23.71	.....	.....
Roof,	15.13	.....	3.70	.....	1.66	.....	5.40	.....	.....	.63	26.52	.....	.....
Cleaning,	95.92	26.35	.....	.....	14.75	.....	.....	.....	.....	4.86	141.88	.....	.....
Watching,	1,686.02	8.04	.06	.....	355.62	.37	.....	.....	.....	83.15	2,133.26	.....	.....
Armory Street (B. & A.).													
Roadway,	76.63	5.70	166.84	17.20	18.12	.....	.....	.....	.....	2.64	287.13	.....	.....
Armory Street (N. Y., N. H. & H.).													
Roadway,	186.35	40.22	169.62	.....	71.52	.....	.....	$3.66	.....	8.95	480.32	.....	.....
Red House Crossing Bridge.													
Roadway,	2.70	.....	5.66	.....	.41	.....	.....	.....	.....	.13	8.90	.....	.....
North End Bridge.													
Inspecting,	.....	.....	.....	250.00	.....	.....	.....	.....	.....	.....	250.00	.....	.....
Roadway,	873.00	3.15	968.77	315.85	146.00	.63	47.50	.....	.....	85.33	2,390.23	.....	.....
Cleaning,	41.72	17.99	.....	.....	8.18	1.32	.....	.....	.....	2.19	71.40	.....	.....
Painting,	18.98	.....	459.84	65.84	2.24	.....	.....	.....	.....	.42	547.32	.....	.....
Watching,	8.08	.....	.....	.....	1.20	.....	.....	.....	.....	.36	9.64	.....	.....
Abbe Avenue Bridge.													
Roadway,	4.47	.....	.....	.....	.50	.....	.....	.....	.....	.18	5.15	.....	.....
Birnie Avenue Bridge.													
Roadway,	2.04	1.34	1.91	.....	.18	.....	.....	.....	.....	.09	5.56	.....	.....
Ludlow Bridge.													
Roadway,	7.61	5.25	3.77	.....	1.64	.....	.....	.....	.....	.36	18.63	.....	.....
Sidewalk,	14.11	6.84	7.04	.....	3.54	.....	.....	.....	.....	.68	32.21	.....	.....
Total cost,	$4,215.13	$273.44	$2,726.91	$1,139.19	$859.59	$3.82	$141.70	$3.66	.....	$195.19	$9,558.63	.....	.....

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CLASSIFICATION OF EXPENSE.—*Continued.*

BRIDGES.—Continued.	Cost of Work Performed.												
	Labor, Material, Equipment, and Other Charges.											Total Work Units.	Unit Cost.
MAINTENANCE. ASSESSABLE COST.	Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.		
North End Bridge. Roadway,.....	$81.93	.....	$90.55	.....	$11.03	.....	.....	.....	.....	$3.26	$186.77	.....	.....
Total cost,.....	$81.93	.....	$90.55	.....	$11.03	.....	.....	.....	.....	$3.26	$186.77	.....	.....
Grand total, Bridges,.....	$11,745.95	$3,203.44	$15,776.85	$2,652.54	$1,905.34	$33.19	$195.93	$70.33	$115.45	$543.31	$36,242.33	.....	.....
SIDEWALKS AND CURBING.													
CONSTRUCTION. CITY COST.													
Concrete walks,.....	$98.82	$14.35	$32.27	.....	$47.15	$0.25	$4.00	.....	.....	$4.46	$201.30	.....	.....
Brick walks,.....	6.01	.....	.....	.....	3.15	.....	.....	.....	.....	.32	9.48	.....	.....
Granite curb,.....	7,761.22	2,215.77	204.30	.....	3,960.78	8.77	3.75	.....	.....	364.14	14,518.73	.....	.....
Gravel walks,.....	128.94	87.85	.40	.....	69.02	.....	.....	.....	.....	6.09	292.30	.....	.....
Total cost,.....	$7,994.99	$2,317.97	$236.97	.....	$4,080.10	$9.02	$7.75	.....	.....	$375.01	$15,021.81	.....	.....
CONSTRUCTION. ASSESSABLE COST.													
Concrete walks,.....	$1,770.04	$912.04	$873.69	$12.42	$953.08	$0.75	$12.30	.....	$72.25	$81.84	$4,688.41	.....	.....
Brick walks,.....	508.93	108.82	145.19	.....	234.85	.....	.....	.....	.....	23.48	1,021.27	.....	.....
Granite curb,.....	2,781.53	4,509.45	30,399.50	.....	1,547.31	.....	3.00	.....	.....	133.77	39,374.56	.....	.....
Total cost,.....	$5,060.50	$5,530.31	$31,418.38	$12.42	$2,735.24	$0.75	$15.30	.....	$72.25	$239.09	$45,084.24	.....	.....

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CLASSIFICATION OF EXPENSE.—*Continued.*

SIDEWALKS AND CURBING.—Continued.	Cost of Work Performed.												
	Labor, Material, Equipment, and Other Charges.											Total Work Units.	Unit Cost.
MAINTENANCE. CITY COST.	Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.		
Concrete walks,	$16.15	$7.64	$9.10	$45.00	$8.25	.....	.....	.....	.....	$0.73	$86.87	.....	.....
Brick walks,	205.05	41.01	64.10	.....	105.18	$96.30	$6.25	.....	.....	9.75	527.64	.....	.....
Granite curbs,	661.95	182.42	14.96	.....	318.38	.....	.....	.....	.....	30.67	1,208.38	.....	.....
Crosswalks,	20.35	8.85	1.14	.....	9.63	.....	.....	.....	.....	.90	40.87	.....	.....
Driveways,	69.42	17.10	26.84	.....	33.04	3.90	.....	.....	.....	3.03	153.33	.....	.....
Tar walks,	48.33	13.65	27.20	.....	22.05	.....	.....	.....	.....	2.21	113.44	.....	.....
Tree belts,	130.13	50.21	.....	1.25	66.24	1.13	.....	.....	.....	6.31	255.27	.....	.....
Total cost,	$1,151.38	$320.88	$143.34	$46.25	$562.77	$101.33	$6.25	.....	.....	$53.60	$2,385.80	.....	.....
MAINTENANCE. ASSESSABLE COST.													
Concrete walks,	$3.07	$1.75	$1.50	.....	$1.41	.....	.....	.....	.....	$0.14	$7.87	.....	.....
Brick walks,	10.29	4.90	2.10	.....	4.80	.....	.....	.....	.....	.45	22.54	.....	.....
Granite curb,	124.50	39.20	47.78	.....	63.66	.....	.....	.....	.....	5.64	280.78	.....	.....
Driveways,	366.98	163.55	552.99	.....	178.53	.....	.....	.....	.....	16.62	1,278.62	.....	.....
Total cost,	$504.79	$209.40	$604.37	.....	$248.40	.....	.....	.....	.....	$22.85	$1,589.81	.....	.....
Grand total, Sidewalks and Curbing,	$14,711.66	$8,378.56	$32,403.06	$58.67	$7,626.51	$111.10	$29.30	.....	$72.25	$690.55	$64,081.66	.....	.....
SPRINKLING STREETS.													
City Cost,	$1,571.63	$2,981.63	$0.13	$4,634.01	$1,569.62	.....	$617.28	.....	.....	$65.60	$11,439.90	.....	.....
Total cost,	$1,571.63	$2,981.63	$0.13	$4,634.01	$1,569.62	.....	$617.28	.....	.....	$65.60	$11,439.90	.....	.....

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CLASSIFICATION OF EXPENSE.—*Continued.*

	Cost of Work Performed.												
	Labor, Material, Equipment, and Other Charges.											Total Work Units.	Unit Cost.
OILING STREETS. **MAINTENANCE. CITY COST.**	Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.		
												sq. yds.	
Oil,	$526.58	$0.70	$8,385.92	.....	$111.85	.....	$548.82	.....	.....	$22.05	$9,595.92	2,803,320	$0.00342
Oil and sand,	2,488.17	895.66	8,406.24	.....	875.11	$8.50	1,055.63	.....	.....	116.06	13,840.37	576,868	.....
Assessable cost,	57.77	.....	1,471.20	.....	5.39	.....	126.35	.....	.....	2.67	1,663.38	.....	.0240
Total cost,	$3,067.52	$896.36	$18,263.36	.....	$992.35	$8.50	$1,730.80	.....	.....	$140.78	$25,099.67	.....	.....
LIGHTING STREETS.													
Lighting streets and bridges	.....	.....	.....	$128,593.43	$3,581.04	.....	.....	.....	.....	.....	$132,174.47	.....	.....
Flood lighting, Municipal Group,	$0.35	.....	$6.90	374.06	.....	.....	$0.20	.....	.....	.....	381.51	.....	.....
Lighting Clinton Street Underpass,	.....	.....	.....	89.08	.....	.....	.....	.....	.....	.....	89.08	.....	.....
Total cost,	$0.35	.....	$6.90	$129,056 57	$3,581.04	.....	$0.20	.....	.....	.....	$132,645.06	.....	.....
OUTSIDE COSTS.													
Rent of equipment,	.....	.....	.....	.....	.....	.....	.....	.....	$30.85	.....	$30.85	.....	.....
Rent of rollers,	$37.47	.....	.....	.....	$14.55	.....	.....	$29.22	.....	$1.55	82.79	.....	.....
Miscellaneous,	73.49	$13.06	$2,686.66	$358.91	5.80	$13.18	.....	.....	.....	3.03	3,154.13	.....	.....
Oiling,	.....	.....	.....	.....	.....	.....	$378.38	.....	.....	.....	378.38	.....	.....
Maintenance building department automobiles,	179.08	.....	237.28	64.14	16.12	.....	.....	.....	.....	.....	496.62	.....	.....
Total cost,	$290.04	$13.06	$2,923.94	$423.05	$36.47	$13.18	$378.38	$29.22	$30.85	$4.58	$4,142.77	.....	.....

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CLASSIFICATION OF EXPENSE.—*Continued.*

STREET CLEANING.	Cost of Work Performed.												
	Labor, Material, Equipment, and Other Charges.											Total Work Units.	Unit Cost.
	Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.		
Patrol,	$31,061.27	$572.25	$17.76	.....	$3,891.56	$1,051.73	$413.23	.....	.....	$1,570.21	$38,578.01	.....	.....
Leaves,	121.88	99.05	.....	.....	15.84	.....	.....	.....	.....	5.94	242.71	.....	.....
Machine,	3,911.86	6,429.36	3.36	$150.00	447.67	137.18	.....	.....	.....	199.44	11,278.87	.....	.....
Macadam,	13,082.94	4,194.83	.....	.....	2,007.67	1,502.89	19.80	.....	.....	684.78	21,492.91	.....	.....
Gutters,	2.89	.....	.....	.....	.19	.....	.....	.....	.....	.14	3.22	.....	.....
Crosswalks,	8,377.33	5.94	.....	.....	901.82	.....	.....	.....	.....	428.06	9,713.15	.....	.....
Gravel,	175.43	143.77	.....	.....	18.14	.....	.....	.....	.....	8.37	345.71	.....	.....
Wellholes,	714.67	83.15	12.98	.....	90.62	119.70	15.78	.....	.....	34.41	1,071.31	.....	.....
Catch basins,	278.21	141.93	.....	.....	46.01	6.65	1.60	.....	.....	13.37	487.77	.....	.....
Total cost,	$57,726.48	$11,670.28	$34.10	$150.00	$7,419.52	$2,818.15	$450.41	.....	.....	$2,944.72	$83,213.66	.....	.....
Sanding,	$855.54	$1,180.98	$222.26	.....	$79.33	$43.53	$3.80	.....	.....	$42.61	$2,428.05	.....	.....
Removal of snow and ice,	19,016.15	14,038.52	154.99	.....	1,329.69	697.66	.....	.....	.....	1,005.46	36,242.47	.....	.....
Total cost,	$19,871.69	$15,219.50	$377.25	.....	$1,409.02	$741.19	$3.80	.....	.....	$1,048.07	$38,670.52	.....	.....
Removal of snow and ice,	$262.68	$247.78	.....	.....	$31.26	$4.80	.....	.....	.....	$13.97	$560.49	.....	.....
Total cost,	$262.68	$247.78	.....	.....	$31.26	$4.80	.....	.....	.....	$13.97	$560.49	.....	.....
Grand total, Cleaning Streets,	$77,860.85	$27,137.56	$411.35	$150.00	$8,859.80	$3,564.14	$454.21	.....	.....	$4,006.76	122,444.67	.....	.....

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CLASSIFICATION OF EXPENSE.—*Continued.*

FORESTRY PROPER.	Cost of Work Performed. Labor, Material, Equipment, and Other Charges. Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.	Total Work Units.	Unit Cost.
Planting,	$677.66	$106.13	$92.80	$116.25	$575.17	$47.19	.....	.....	.....	$31.05	$1,646.25	580	$2.838
Pruning,	4,131.84	.....	23.07	.....	2,899.31	258.49	.....	.....	.....	188.21	7,000.92	.....	.....
Removing trees,	1,334.31	18.01	.24	.....	1,003.70	109.74	.....	.....	.....	60.96	2,526.96	203	12.448
Nursery,	513.76	16.46	.....	.....	316.15	55.03	.....	.....	.....	24.66	926.06	.....	.....
Census,	206.37	.....	.....	.....	141.43	.....	.....	.....	.....	8.70	356.50	.....	.....
Inspection,	.67	.....	.....	.....	.24	.....	.....	.....	.....	.03	.94	.....	.....
Miscellaneous,	314.08	126.00	.....	.....	202.42	27.48	.....	.....	.....	13.78	683.76	.....	.....
Surgery,	308.29	1.79	33.69	26.52	198.57	54.30	.....	.....	.....	14.24	637.40	.....	.....
Total cost,	$7,486.98	$268.39	$149.80	$142.77	$4,836.99	$552.23	.....	.....	.....	$341.63	$13,778.79	.....	.....
ASSESSABLE COST.													
Planting trees,	$58.78	.....	.....	.....	$51.04	$7.92	.....	.....	.....	$2.64	$120.38	.....	.....
Removing trees,	178.05	$2.62	$0.04	.....	153.31	14.86	.....	.....	.....	8.22	357.10	12	$29.758
Total cost,	$236.83	$2.62	$0.04	.....	$204.35	$22.78	.....	.....	.....	$10.86	$477.48	.....	.....
INSECT CONTROL.													
Spraying elm beetle,	$1,043.46	$114.34	$464.52	.....	$971.40	$29.90	$156.00	.....	$254.50	$48.99	$3,083.11	.....	.....
Spraying brown tail moth,	266.57	.....	.....	.....	188.82	.....	.....	.....	.....	11.47	466.86	.....	.....
Spraying San José scale,	.72	.89	.....	.....	.50	.....	.....	.....	.....	.08	2.14	.....	.....
Spraying cottony maple scale,	205.83	.....	153.52	.....	157.08	34.99	.....	.....	53.00	8.82	613.24	.....	.....
Total cost,	$1,516.58	$115.23	$618.04	.....	$1,317.80	$64.89	$156.00	.....	$307.50	$69.31	$4,165.35	.....	.....
ASSESSABLE COST.													
Spraying elm beetle,	$0.95	$0.70	.....	.....	$0.90	.....	.....	.....	$1.00	$0.05	$3.60	.....	.....
Total cost,	$0.95	$0.70	.....	.....	$0.90	.....	.....	.....	$1.00	$0.05	$3.60	.....	.....
Grand total, Forestry,	$9,241.34	$386.94	$767.88	$142.77	$6,360.04	$639.90	$156.00	.....	$308.50	$421.85	$18,425.22	.....	.....

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CLASSIFICATION OF EXPENSE.—*Concluded.*

SHOPS.	Cost of Work Performed. Labor, Material, Equipment, and Other Charges. Labor.	Hired Equipment.	Materials.	Other Charges.	Overhead Expense.	City Teams.	Auto Trucks.	Rollers.	Other City Equipment.	Depreciation of Equipment.	Total Cost.	Total Work Units.	Unit Cost.
Repairing drinking fountains,	$149.96	$5.68	$5.24	.....	$19.37	$2.38	$0.50	.....	.....	$5.79	$188.92	.....	.....
Total cost,	$149.96	$5.68	$5.24	.....	$19.37	$2.38	$0.50	.....	.....	$5.79	$188.92	.....	.....
ADMINISTRATIVE AUTOMOBILES.													
Mayor's auto,	$669.88	.....	$158.89	$437.87	$82.88	.....	.....	.....	.....	.....	$1,349.52	.....	.....
Municipal auto,	1,047.85	.....	204.05	521.61	103.49	.....	.....	.....	.....	.....	1,877.00	.....	.....
Total cost,	$1,717.73	.....	$362.94	$959.48	$186.37	.....	.....	.....	.....	.....	$3,226.52	.....	.....
STABLES AND YARDS.													
IMPROVEMENTS.													
*Paving Summer street yard,	$709.33	$216.84	$43.73	.....	.....	.....	$26.86	$6.24	.....	$34.08	$1,037.08	.....	.....
*Construction of shed at Summer street,	258.79	.....	1,057.61	.....	.....	.....	4.00	.....	.....	8.37	1,328.77	.....	.....
Moving to Dunn building,	168.11	.....	.....	.....	.....	$12.75	10.30	.....	.....	7.46	198.62	.....	.....
Moving Dunn building and constructing shop,	746.06	.....	365.57	$10,425.40	.....	6.77	8.40	.....	.....	30.26	11,582.46	.....	.....
†Logan street incinerator,	2,365.55	255.15	1,021.02	13,805.40	.....	3.30	45.82	.....	$11.70	94.18	17,602.12	.....	.....
†Remodeling forestry building into barn,	1,797.93	5.95	435.05	2,371.60	.....	.....	1.13	.....	.....	70.22	4,681.88	.....	.....
Repairing North End incinerator,	.....	.....	.....	155.60	.....	.....	.....	.....	.....	.....	155.60	.....	.....
Total cost,	$6,045.77	$477.94	$2,922.98	$26,758.00	.....	$22.82	$96.51	$6.24	$11.70	$244.52	$36,586.48	.....	.....

* Denotes completion of 1915 work.

† Denotes incomplete work.

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SERVICES RENDERED—NOT CHARGEABLE TO DEPARTMENTAL COSTS.

Lines and Grades—Sidewalks and Curbing,	$433.35
Surveys, Plans, etc., for Assessors,	658.00
Surveys, Plans, etc., for Board of Public Works,	1,664.63
Inspection of Street Permits,	594.85
Fees for Registration of Assessment Plans,	143.35
City Planning Commission,	507.99
Engineering for Law Department,	24.05
Special Damages to Persons and Property Not Charged to Overhead,	5.00
Surveys, etc., for City Property Committee,	56.07
Surveys and Plans, All Other Departments,	96.25
	$4,183.54

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REPORT

OF

ENGINEERING DIVISION

FOR THE FISCAL YEAR ENDING NOVEMBER 30, 1916.

SPRINGFIELD, MASS., December 22, 1916.

To F. H. Clark, Superintendent of Streets and Engineering, City.

DEAR SIR:—The operations of the Engineering Division during the fiscal year of 1916 are hereby briefly summarized.

GENERAL.

As in previous years the Engineering Division has responded to the miscellaneous calls of the several other city departments for such service as comes within the scope of the Engineering Division. The Board of Public Works has required a considerable service for necessary surveys and plans for the numerous and varied reports, to the Board of Aldermen and the City Council body, upon a large number of petitions referred to the board relating to street layouts and alterations, sidewalks and curbing, and sewers.

With the continual growth of the city added service is required from year to year for the information of the Board of Public Works and for reporting to the City Council upon the many matters referred to the board.

Several projects are now before the board, through the usual petitions, some of the more important of which are named in the following:—

Main street widening, Central to Locust street.
Liberty street widening, Armory street to Chicopee line.
Chestnut street widening or building line establishment, Liberty to Carew street.
Locust street building line establishment, Main to Mill street.
Connecticut river boulevard, West street to Chicopee line.
Water street widening, Bliss street to B. & A. railroad.

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Some of these important matters which have been before the board some time were set aside, pending the action of the legislative body of 1916 for the enactment of a new law for the taking of lands for public purposes that, according to the method worked out by a special commission appointed by the Legislature of 1915, was thought to simplify and make possible the acquirement of lands for public use in a more desirable manner, advantageous to both the municipality and private property interests. However, up to the present time, no final action has been taken upon the enactment of the law as proposed.

TOPOGRAPHICAL SURVEY.

The Topographical Survey of the outlying and suburban portions of the city (in response to request of the City Planning Board) has progressed steadily, a party of assistants having been constantly employed throughout the year in field and office. At the present time two draftsmen are constantly devoted to mapping this work. The surveys during the year cover the East Springfield district and vicinity.

CITY PLANNING COMMISSION.

Considerable time has been expended in the preparation of several wall maps of the city showing the various features of interest to City Planning and the studies connected therewith.

LAW DEPARTMENT.

As heretofore all requests of the city Law Department have been responded to and much time and service expended in the surveys and plans needed, as evidence in the prosecution of suits at law.

This department has also furnished photographs when required for evidence in suits brought against the city for sidewalk injuries.

ASSESSORS' PLANS.

The work of preparing plans for use of the Assessors of Taxes has been further prosecuted during the year. The district bounded by Carew, North Main, Chestnut, and Calhoun streets has been surveyed and plans completed.

Following is a list of the streets made public during the fiscal year, also those widened and relocated.

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The opportunity is taken to express appreciation of the courtesies extended at all times and the faithful co-operation of the office force.

Respectfully submitted,

CHAS. M. SLOCUM,
Deputy City Engineer.

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STREETS MADE PUBLIC, 1916.

By Order of the City Council.

Name.	Limits.	Length in feet.	Width in feet.	Date of City Council's Order.
Chapel street,	Eastern avenue easterly to Gunn estate,	443	40	Dec. 21, 1915
Genesee street extension	Present westerly terminus to Dunn street,	80	50	Dec. 21, 1915
Orchard street extension,	Westerly to Connecticut river,	449	50	Dec. 21, 1915
Arch street extension,	Westerly end first accepted to Birnie avenue,	236	50	Apr. 4, 1916
Centre street, I. O., extension,	Cedar street easterly as far as opened,	380	50	Jan. 18, 1916
Napier street,	Armory street easterly to railroad track,	589	50	Jan. 25, 1916
St. James boulevard,	Westerly end Page boulevard westerly to Carew street,	2,579	70	July 18, 1916
Noel street,	Mill street easterly to Oakland street,	1,488	60	Feb. 1, 1916
Longview street,	Leete street southerly to Edgeland street,	551	50	July 18, 1916
Goodrich street,	Liberty street westerly 220′,	220	50	July 18, 1916
Genesee street extension,	Liberty street easterly to Warwick avenue,	644	50	July 18, 1916
Coomes street,	Leete street southerly to Edgeland street,	424	50	July 25, 1916
Crane street,	Franklin street northerly 431′,	431	50	Aug. 1, 1916
Wait street,	Armory street to Penacook avenue,	1,428	40	Aug. 1, 1916
Duryea street,	Page boulevard to Eureka street,	1,045	50	Aug. 1, 1916
Marshall street,	Walnut street to Eastern avenue and southerly to Melrose street,	481 41	41.5	Nov. 21, 1916
Triangular plot of land at junction of Oak and Walnut streets,	Average width,	24.45x31		Nov. 21, 1916

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STREETS RELOCATED AND WIDENED, 1916.

BY ORDER OF THE CITY COUNCIL.

NAME.	LIMITS.	Length in feet.	Width in feet.	Date of City Council's Order.
Rumrill road widening and extension,	Westerly side, from Chicopee line, southeasterly to angle first south of Chicopee line, southerly to Page boulevard,	3,065	70	March 7, 1916
Main street relocation,	Line forming northeasterly corner, at intersection with Pecousic avenue,	166	5.5	March 7, 1916
West street widening,	Plainfield street westerly to Connecticut river,	Abt. 1,215	32	June 27, 1916
Boston road relocation,	Vicinity of Five Mile pond,	822		July 18, 1916
Springfield street widening,	Westerly line near Shefford street,	126	Abt. 3 av.	July 18, 1916
Springfield street relocation and reestablishment,	Junction with Caseland street,	Abt. 150-152		July 18, 1916
Knox street widening, easterly side,	Jog southerly of Foster street northerly to northerly line of Windsor street,	305	5	Sept. 12, 1916
Main street widening, westerly side,	Fremont to Loring street,	256	7 av.	Oct. 10, 1916
Longhill street relocation and widening,	Point between Washington boulevard and Cherryvale avenue, southerly and westerly, to point near westerly line of land of Fred T. Ley,	1,169	100	Oct. 17, 1916
Main street widening, easterly side,	Across land of T. B. Moineau, corner of Saratoga street,	38	10	Oct. 31, 1916

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REPORT

OF THE

STREET DIVISION

FOR THE FISCAL YEAR ENDING NOVEMBER 30, 1916.

Mr. F. H. Clark, Superintendent, Department of Streets and Engineering.

DEAR SIR:—A summary of the work accomplished by the Street Division during the fiscal year ending November 30, 1916, is contained in the annual report which I submit herewith.

In the Highway Division a work program equal to that of last year was contemplated at the beginning of the season but, owing to unfavorable labor conditions and to the difficulty encountered in procuring raw materials, it was impossible to carry out this program in full and several of the residential streets upon which it was proposed to make improvements have been through necessity considered as propositions for next year's work. Consequently the total expenditure in this division shows a decrease from that of last year of about $50,000. Nevertheless, the main thoroughfares have received the attention which had been planned for them and entrances into the city from the west, east, and northeast may now be made over a pavement representative of Springfield's type of streets. I refer to the concrete on Boston road which now extends to the Wilbraham town line, to the brick paving on Liberty street from Heywood street to Armory street, and to Plainfield street upon which great improvement has been made through the paving of the approaches to the Plainfield Street Bridge and the re-location and extension of the Street Railway tracks.

Though the construction of permanent pavements and surface pavements shows a decrease from that of last season, the re-surfacing of old macadam streets with tar top and bituminous concrete has increased to a large measure. Approximately 61,500 square yards of tar top re-surfacing and 52,505 square yards of bituminous concrete re-surfacing were done this season compared with 22,628 square yards of

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tar top and 45,477 square yards of bituminous concrete laid the preceding season. In addition to this there have been the usual amount of general repairs.

Other than the construction of the approaches to the Plainfield Street Bridge, repairs to the roadways of the Old Toll Bridge and the North End Bridge over the Connecticut River were the only operations undertaken in the Bridge Division outside of the usual small repairs.

A large amount of work has been done in the Sidewalk and Curbing Division, the larger part of this being the construction of new curb. A vast number of petitions for new walks has been received and had it been possible to secure the necessary labor, a much larger amount of work would have resulted. Present sidewalk conditions necessitate that these orders for new walks be carried out as soon as conditions permit and it is desirable that a larger expenditure be made in this division next year.

The expense of oiling streets during this past summer has been somewhat larger than usual. A one hundred per cent increase in the price of oil is accountable for this.

Although the cost of ordinary street cleaning fell slightly under that of last year, an unusually heavy fall of snow last winter caused the department to far exceed its original estimate and an additional appropriation of $23,498.66 was necessary to clear the streets of the often occurring fall of snow.

The tables of unit costs and expense following will better show that which has been done by the department than a wordy discussion. I believe that it is creditable to the department that it has so successfully passed through a season when working conditions have been so disturbed. I am sure that this is due mostly to the co-operative spirit which so largely prevails among those assisting in the work of this division. That I appreciate this as well as the numerous courtesies received from yourself, I can assure you.

Respectfully submitted,

A. H. WOODWARD,
Deputy Superintendent of Streets.

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STREET CONSTRUCTION.

PAVING.

Street.	Limits.	Materials.	Length in feet.	Area in sq. yds.	Depreciation.	Indirect Cost.	Total Cost.	Cost per sq. yd.
Armory street,	Magazine to Federal,	Asphalt,	798	2,775	$61.22	$489.72	$4,863.95	$1.752
Boston road,	From terminus of present concrete pavement to Wilbraham line,	Mixed concrete,	12,771	31,217	801.47	5,343.20	54,147.34	1.734
Chestnut street,	Allendale to Jefferson ave.,	Wood block,	842	2,881	105.55	703.70	8,947.54	3.105
†Chestnut street	Everett to Carew,	Wood block,	.....	.....	14.06	93.75	1,081.15	.....
*Fulton street,	.....	Granite block,	1,505	9,041	223.44	1,489.70	33,459.81	3.70
†Hickory street,	Eastern avenue to Walnut,	Brick,	.....	.....	2.33	15.55	458.71	.....
Liberty street,	Heywood to Armory,	Brick,	2,030	7,260	279.51	1,863.35	21,568.24	2.97
New street,	.....	Mixed concrete,	378	925	36.01	240.05	2,146.83	2.32
Oak street, I. O.,	Main to south line of Worcester,	Asphalt,	364	1,684	39.41	262.70	2,832.90	1.623
Totals,	.....	.....	18,688	55,783	$1,563.00	$10,501.72	$129,506.47	.....

* Denotes special account.

† Denotes incomplete work.

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TABLE OF PERMANENT PAVEMENTS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Armory street,	Federal to Magazine,	Grit asphalt,	798	2,775	1916
Armory street,	Worthington to N. Y., N. H. & H. R. R.,	Granite blocks on concrete,	878	3,044	1914
Barnes street,		Bitulithic,	178	552	1909
Bay street,	Catharine to N. Y., N. H. & H. R. R.,	Grit asphalt,	1,295	4,778	1914
Belmont avenue,	At Locust and Mill streets,	Brick,	——	133	1912
Belmont avenue,	Mill street to Bellevue avenue,	Granite blocks on concrete,	1,702	4,507	1913
Belmont avenue,	Mill st. to Bellevue av., between rails,	Granite blocks on concrete,	——	2,260	1912
Belmont avenue,	Bellevue av. to Hall st., between rails,	Brick,	——	1,211	1901
Belmont avenue,	Hall to Oakland, between rails,	Brick,	——	914	1903
Belmont avenue,	Bellevue avenue to "X,"	Grit asphalt,	3,444	12,897	1914
Birnie avenue,	Hooker street, northerly,	Brick,	145	483	1906
Bliss street,	Main to Water,	Bitulithic,	963	3,104	1914
Boston road,	Berkshire avenue, easterly, 1 mile,	Mixed concrete,	5,280	12,907	1915
Boston road,	End of 1915 work to Wilbraham line,	Mixed concrete,	12,771	31,217	1916
Bradford street,	Main to Plainfield,	Wood blocks,	51	192	1915
Bridge street,	Chestnut to Davis alley,	Asphalt blocks,	195	712	1910
Bridge street,	Davis alley to Dwight,	Wood blocks,	122	446	1910
Bridge street,	Dwight to Barnes,	Sheet asphalt,	439	1,655	1915
Bridge street,	Barnes to Main,	Bitulithic,	251	870	1900
Bridge street,	Broadway to Water,	Bitulithic,	252	895	1911
Carew street,	Intersection of Chestnut,	Brick,	50	229	1914
Catharine street,	State to Bay,	Brick,	1,722	5,691	1900
Charter avenue,	Walnut to Oak street,	Mixed concrete,	629	1,034	1915
Chestnut street,	Pearl to Bridge,	Bitulithic,	201	952	1912
Chestnut street,	Linden to Everett,	Wood blocks,	419	1,438	1909
Chestnut street,	Carew to Allendale,	Brick,	1,015	3,432	1900
Chestnut street,	Allendale street to Jefferson avenue,	Wood blocks,	842	2,881	1916
Court street,	Main street to Court Square avenue,	Rock asphalt,	317	1,149	1897

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TABLE OF PERMANENT PAVEMENTS.—*Continued.*

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Court street,	Main street to Court Square avenue,	Brick,	——	174	1897
Court street,	Main street to Court Square avenue,	Brick,	——	128	1907
Court street,	Court Square avenue to Water street,	Bitulithic,	617	2,699	1911
Court Square avenue,	Court to Elm street,	Sheet asphalt,	193	503	1897
Court Square avenue,	Court to Elm street,	Brick,	——	330	1897
Cross street,	Main to Willow,	Wood blocks,	316	897	1913
Cypress street,	At Fulton street,	Granite blocks on concrete,	31	115	1915
Dwight street,	State to Lyman,	Brick,	2,324	9,905	1896
Dwight street,	Lyman to Liberty,	Brick,	399	1,955	1915
East Court street,	Main to Market,	Rock asphalt,	117	297	1900
East Court street,	Market to Dwight,	Wood blocks,	372	941	1912
Eastern avenue,	State street to Wilbraham road,	Bitulithic,	84	340	1913
Elm street,	Main to Court Square avenue,	Sheet asphalt,	343	949	1897
Elm street,	Main to Court Square avenue,	Brick,	——	330	1897
Emery street,		Wood blocks,	611	2,068	1914
Ferry street,	Main street to foot of hill,	Bitulithic,	1,389	3,597	1910
Ferry street,	Foot of hill to Chestnut,	Granite blocks,	104	265	1915
Fulton street,	Cypress to Auburn,	Granite blocks,	1,505	9,041	1916
Harrison avenue,	Main to Market street,	Sheet asphalt,	210	816	1916
Harrison avenue,	Market to Dwight street,	Sheet asphalt,	377	1,439	1915
Harrison avenue,	Dwight to Chestnut street,	Granite blocks,	232	957	1915
Hillman street,	Dwight to Chestnut,	Granite blocks,	304	919	1915
Hubbard avenue,	Main to Willow street,	Wood blocks,	382	722	1915
King street,	Street Railway turnout,	Wood blocks,	317	1,023	1908
Liberty street,	Main street, easterly 311 feet,	Bitulithic,	311	1,335	1911
Liberty street,	Extension to foot of hill,	Wood blocks,	799	3,366	1915
Liberty street,	Foot of hill to Chestnut street,	Granite blocks,	306	1,272	1915

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TABLE OF PERMANENT PAVEMENTS.—*Continued.*

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Liberty street,	Chestnut to Cass,	Brick,	1,399	4,571	1900
Liberty street,	Cass street to Heywood avenue,	Brick,	1,147	3,971	1901
Liberty street,	Heywood avenue to Armory street,	Brick,	2,030	7,260	1916
Locust street,	At watering trough,	Brick,	——	50	1913
Locust street,	Main to Mill, between tracks,	Brick,	——	1,135	1913
Locust street,	Main to Mill,	Bitulithic,	826	3,153	1913
Lyman street,	East and west of Dwight street, between tracks,	Granite blocks,	——	297	1915
Magazine street,	Worthington to Lincoln,	Grit asphalt,	961	3,992	1914
Main street,	Locust to Marble,	Brick,	840	4,381	1897
Main street,	Marble to William,	Brick,	1,762	8,307	1896
Main street,	William to Bliss,	Wood blocks,	1,150	5,489	1906
Main street,	Park to Bliss, east side,	Wood blocks,	——	971	1916
Main street,	Bliss to State,	Brick,	241	1,355	1893
Main street,	State to Worthington,	Wood blocks,	1,899	10,798	1904
Main street,	Worthington to Hampden, west side,	Wood blocks,	382	1,183	1904
Main street,	Worthington to Hampden, east side,	Wood blocks,	——	962	1903
Main street,	Hampden to Lyman,	Wood blocks,	153	775	1903
Main street,	Lyman to Liberty,	Wood blocks,	484	2,780	1903
Main street,	Liberty to Sharon, east side,	Wood blocks,	453	1,135	1903
Main street,	Liberty to Sharon, west side,	Wood blocks,	——	1,487	1907
Main street,	Sharon to Franklin,	Wood blocks,	509	2,103	1907
Main street,	near Franklin, east side,	Brick,	36	144	1907
Main street,	Franklin to Carew, east side,	Brick,	1,302	4,605	1897
Main street,	Franklin to Greenwood, between tracks,	Brick,	——	360	1914
Main street,	Emery to Seventh, west side,	Wood blocks,	1,105	3,203	1915

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TABLE OF PERMANENT PAVEMENTS.—*Continued.*

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Main street,	Clinton to Sargeant, west side, between tracks,	Wood blocks,	——	511	1915
Main street,	Clinton to Carew, west side, between tracks and "Green,"	Concrete,	——	217	1915
Main street,	Seventh to Sargeant, west side,	Grit asphalt on old brick,	350	941	1914
Main street,	Crossing opposite Auburn street,	Brick,	——	163	1903
Main street, I. O.,	305 feet west of Oak street to east line of French Church,	Grit asphalt,	1,362	7,098	1915
Maple street,	North line of Avon place to Central street,	Grit asphalt,	242	1,028	1915
Mill street,	Locust street, easterly,	Brick,	——	511	1913
New street,		Mixed concrete,	378	925	1916
North street,	Liberty to Carew,	Bitulithic,	2,246	11,601	1914
North Main street,	Carew to Morgan,	Wood blocks,	789	4,194	1915
North Main street,	Morgan to Bancroft,	Wood blocks,	879	4,544	1909
North Main street,	Bancroft to Calhoun,	Wood blocks,	839	4,210	1910
North Main street,	Calhoun to Grove,	Wood blocks,	673	3,466	1911
North Main street,	Grove to Thomas,	Wood blocks,	691	2,536	1912
North Main street,	Grove to Thomas, between rails,	Wood blocks,	——	1,012	1913
North Main street,	Thomas street to Chicopee line,	Wood blocks,	3,266	16,151	1913
North Main street,	At Wason avenue,	Brick,	——	196	1908
Oak street, I. O.,	Main south line of Worcester street,	Grit asphalt,	364	1,684	1916
Orange street,	Intersection of White street,	Brick,	85	370	1914
Park street,	Main to Willow,	Wood blocks,	326	1,014	1915
Plainfield street,	Sargeant street, westerly,	Brick,	1,456	8,690	1902
Plainfield street,	Extension to B. & M. R. R.,	Brick,	254	1,559	1916
Plainfield street,	B. & M. R. R., northerly (includes 188 feet in West street,	Granite blocks,	396	3,073	1916

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TABLE OF PERMANENT PAVEMENTS.—*Continued.*

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Post Office square,	Worthington to Fort street,	Mixed concrete,	80	111	1914
Pynchon street,	Main to Water,	Bitulithic,	870	2,866	1911
Railroad street,	Water street, easterly,	Granite blocks,	326	1,246	1915
Sanford street,	Main to Market,	Sheet asphalt,	102	207	1900
Sanford street,	Market to Dwight,	Wood blocks,	371	1,324	1912
Spring street,	State to Worthington,	Bitulithic,	1,820	6,133	1913
Spring street,	Worthington to Lyman,	Granite blocks,	507	1,739	1913
State street,	Water street, easterly,	Wood blocks,	360	1,321	1914
State street,	Main street, westerly,	Wood blocks,	598	2,357	1909
State street,	Main to Dwight,	Wood blocks,	478	2,403	1908
State street,	At Dwight street,	Wood blocks,	——	70	1914
State street,	Dwight to Maple,	Granite blocks,	344	1,936	1914
State street,	Walnut street, westerly,	Wood blocks,	527	4,063	1914
State street,	Federal to Oak,	Brick,	847	4,590	1897
State street,	At Walnut street,	Brick,	——	278	1908
State street,	At St. James avenue,	Brick,	——	183	1907
State street,	Oak to Stebbins,	Wood blocks,	762	3,031	1909
State street,	Stebbins to Terrence,	Wood blocks,	386	1,497	1910
State street,	Terrence to Westminster,	Wood blocks,	639	3,256	1911
State street,	Oak to Westminster, widening to north and south curb, from Oak to Terrence, and between tracks Terrence to Westminster,	Wood blocks,	——	4,854	1913
State street,	Westminster to Buckingham,	Wood blocks,	360	2,520	1913
State street,	Buckingham to Sherman,	Bitulithic,	477	5,596	1913
State street,	Sherman to Catharine,	Grit asphalt,	190	782	1915
State street,	Catharine to N. Y., N. H. & H. R. R.,	Wood blocks,	633	3,112	1915

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TABLE OF PERMANENT PAVEMENTS—*Continued.*

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
State street,	N. Y., N. H. & H. R. R. to Amaron street,	Wood blocks,	1,106	4,271	1912
State street,	N. Y., N. H. & H. R. R. to Amaron, between rails,	Wood blocks,	——	1,490	1913
State street,	Amaron to Pine Point,	Hassam concrete,	6,860	36,871	1914
St. James avenue,	N. Y., N. H. & H. R. R. to B. & A. R. R.,	Hassam concrete,	1,945	9,195	1913
St. James avenue,	B. & A. R. R. to Chicopee line,	Mixed concrete,	6,547	13,094	1915
Stockbridge street,	Main to Willow,	Wood blocks,	317	770	1914
Summer street,	Armory street, westerly,	Old granite blocks,	376	1,306	1914
Sumner avenue,	Oakland street to "X," between tracks,	Grit asphalt,	——	2,073	1915
Sumner avenue,	Oakland street to "X," south side,	Grit asphalt,	1,244	3,053	1915
Sumner avenue,	Intersection of Belmont avenue,	Brick,	——	83	1914
Taylor street,	Dwight to Chestnut,	Wood blocks,	416	1,432	1914
Townsley avenue,		Bitulithic,	142	214	1908
Union street,	Main to Willow,	Wood blocks,	331	1,110	1914
Vernon street,		Bitulithic,	821	2,047	1911
Walnut street,	State to Union, west side,	Brick,	——	721	1899
Walnut street,	Union to Pine, west side,	Brick,	——	1,446	1900
Walnut street,	Front of Engine house,	Wood blocks,	——	98	1914
Walnut street,	State to Pendleton avenue, east side,	Wood blocks,	1,521	2,168	1914
Walnut street,	State to Pendleton avenue, between rails,	Wood blocks,	——	753	1913
Walnut street,	Pendleton avenue to King street, between rails,	Grit asphalt,	——	246	1915
Walnut street,	Pendleton avenue to Six Corners,	Wood blocks,	2,068	6,573	1915
Walnut street,	Six Corners to top of hill,	Grit asphalt,	1,066	3,485	1914
Water street,	Hampden to Cypress,	Granite blocks,	879	5,971	1915

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TABLE OF PERMANENT PAVEMENTS—*Concluded.*

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid
West street,	North of Park,	Grit asphalt,	437	1,332	1916
West street,	South of Park,	Grit asphalt,	106	881	1916
West street,	At B. & M. Bridge (see Plainfield street),	Granite blocks,			
White street,	Near Allen to Orange, between rails,	Brick,	1,610	2,400	1902
Wilbraham road,	Winchester street to N. Y., N. H. & H. R. R.,	Bitulithic,	657	3,255	1913
William street,	Main to Dale,	Mixed concrete,	593	1,898	1914
Willow street,		Wood blocks,	1,189	3,443	1912
Worthington street,	Water street to Broadway,	Wood blocks,	299	1,061	1909
Worthington street,	Main to Dwight,	Brick,	739	2,544	1896
Worthington street,	Dwight street to Fairbanks place,	Brick,	1,060	3,869	1901
Worthington street,	Fairbanks place to east line of Spring street,	Brick,	269	1,003	1903
Worthington street,	At Sackett place,	Wood blocks,	265	886	1908
Worthington street,	Federal to Armory,	Wood blocks,	374	1,312	1908

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RECAPITULATION.

Wood blocks,	5.84 miles
Brick,	3.93 miles
Mixed concrete,	4.98 miles
Bitulithic,	2.29 miles
Grit asphalt,	2.18 miles
Hassam,	1.67 miles
Granite blocks,	1.49 miles
Sheet asphalt,	.32 miles
Grit asphalt on brick,	.07 miles
Asphalt blocks,	.04 miles
Total,	22.81 miles

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STREET CONSTRUCTION.

BITUMINOUS MACADAM.

Street.	Limits.	Length in feet.	Area in sq. yds.	Depreciation.	Indirect Cost.	Total Cost.	Cost per sq. yd.
Abbe avenue,	Fisk avenue to Plainfield street,	658	2,217	$57.65	$307.44	$3,885.88	$1.753
*Albemarle street,	.....	.....	.....	9.72	110.16	1,607.84	.....
Arch street,	Extension to Birnie avenue,	293	1,002	19.15	127.30	1,679.12	1.676
Bartlett street,	.....	571	2,210	30.08	200.55	2,150.69	.973
College street,	Shattuck street northerly,	300	1,000	8.81	58.75	793.14	.793
College street,	State to Shattuck,	778	2,864	18.72	149.58	2,011.46	.702
Chapin terrace,	.....	466	2,729	17.69	117.95	2,074.16	.76
Cortland street,	State street northerly,	650	2,167	11.13	89.04	1,289.57	.595
†Carew street,	Driscoll's by-pass,	.....	.....	9.37	62.40	404.01	.....
Chapel street,	Eastern avenue easterly,	443	1,428	8.66	57.75	608.61	.426
†Colton street,	Wilbraham road to Beacon street,	.....	.....	33.65	224.40	2,647.28	.....
†Collins street,	.....	.....	.....	.38	2.50	23.66	.....
*Dunmoreland street,	.....	.....	.....	4.40	29.30	655.94	.....
†Gordon street,	.....	.....	.....	.93	6.20	47.20	.....
*Grover street,	.....	.....	.....	10.24	116.03	1,443.72	.....
Genesee street,	From portion laid out as public to northerly end of Dunn street,	85	288	2.06	13.75	271.36	.942
Genesee street,	Franklin to a point 80 feet south of Dunn street,	200	738	11.02	73.55	793.51	1.075
*Lexington avenue,	East of Massasoit street,	.....	.....	7.05	47.00	840.16	.....
†Logan street,	Alden to King,	.....	.....	40.08	267.30	3,161.99	.....
Merrick avenue,	.....	326	1,021	5.51	44.10	610.96	.598

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STREET CONSTRUCTION.

BITUMINOUS MACADAM.—CONTINUED.

Street.	Limits.	Length in feet.	Area in sq. yds.	Depreciation.	Indirect Cost.	Total Cost.	Cost per sq. yd.
Mooreland street,		1,417	3,723	$44.51	$296.75	$4,924.80	$1,323
*Narragansett street,		.....	.....	10.51	70.10	1,694.55	.....
Orchard street,		383	1,247	21.11	140.65	1,776.90	1.425
Page boulevard,	North side in front of Westinghouse plant,	620	2,055	22.87	152.45	1,899.22	.924
Prince street,		327	1,098	6.78	54.18	830.80	.757
†Quincy street,	Eastern avenue to Colton street,	.....	.....	1.16	7.70	64.48	.....
Richelieu court,		446	1,403	11.56	130.92	1,251.54	.892
*Rochelle street,	Wilbraham road southerly 856 feet	.....	.....	11.95	95.58	1,058.71	.....
Stafford street,		460	1,567	11.88	79.15	1,105.39	.705
†Shefford street,	Springfield to Caseland,	.....	.....	3.48	23.25	184.66	.....
Shefford street,	Springfield to Springfield,	1,164	3,879	36.76	245.10	3,653.14	.942
Talcott avenue,	Fisk avenue to Plainfield street,	721	3,134	34.22	228.25	3,429.55	1.094
†Tyler street,	Eastern avenue to Colton street,	.....	.....	1.35	9.00	69.91	.....
†Water street widening		.....	.....	.40	2.65	13.00	.....
Willard avenue,	Shattuck street to State street,	766	2,328	15.36	173.99	1,716.22	.737
*Willow street extension,	Adams to Marble,	.....	.....	7.10	70.96	806.05	.....
Sub-total,		11,074	38,098	$547.30	$3,885.73	$51,479.18	.....

* Denotes completion of 1915 work.
† Denotes incomplete work.

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STREET CONSTRUCTION.

WATER-BOUND MACADAM.

Street.	Limits.	Length in feet.	Area in sq. yds.	Depreciation.	Indirect Cost.	Total Cost.	Cost per sq. yd.
Berkshire street,.....	Extension westerly of Chestnut,..	618	1,030	$6.77	$45.15	$359.74	$0.349
†Longhill street,.....	.....	.....	.....	107.40	716.00	4,996.19	.....
		.....	.....	$114.17	$761.15	$5,355.93	.....

FENCES.

*Water street underpass,.....	.....	.....	.....	$0.74	$5.88	$129.60	.....
West street,.....	.....	.....	.....	.99	11.22	45.17	.....
		.....	.....	$1.73	$17.10	$174.77	.....

CULVERTS.

*Liberty street,.....	Abbe Hollow,.....	.....	.....	$37.10	$370.95	$1,334.37	.....

GRAVEL.

*Hickory street,.....	.....	1,535	3,070	$182.22	$1,214.80	$7,312.23	$2.382

* Denotes completion of 1915 work.
† Denotes incomplete work.

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STREET CONSTRUCTION.

PAVING RECAPITULATION.

	Length in ft.	Area in sq. yds.	Cost per sq. yd.	Cost.
Asphalt,.....	1,162	4,459	$1.726	$7,696.85
Brick,.....	2,030	7,260	2.97	21,568.24
Granite block,.....	1,505	9,041	3.70	33,459.81
Mixed concrete,.....	13,149	32,142	1.751	56,294.17
Wood block,.....	832	842	3.105	8,947.54
	18,688	55,783	.....	$127,966.61
			Incomplete	1,539.86

MACADAM RECAPITULATION.

	Length in ft.	Area in sq. yds.	Cost per sq. yd.	Cost.
Bituminous,.....	11,074	38,098	$0.965	$36,756.02
Bituminous, completion of 1915,.....				8,106.97
Bituminous, incomplete,.....				6,616.19
Water-bound,.....	618	1,030	.349	359.74
Water-bound, incomplete,.....				4,996.19
Total,.....				$56,835.11

GRAVEL RECAPITULATION.

	Length in ft.	Area in sq. yds.	Cost per sq. yd.	Cost.
Total,.....	1,535	3,070	$2.382	$7,312.23

CULVERT RECAPITULATION, $1,334.37

FENCE RECAPITULATION, $174.77

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TABLE OF SURFACE PAVEMENT.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Abbe avenue,	Bridge approach,	Water-bound macadam,	872	2,325
Abbe avenue,	Fisk avenue to Plainfield street,	Bituminous macadam,	658	2,217
Acushnet avenue,		Water-bound macadam,	1,088	3,385
Adams street,		Water-bound macadam,	1,003	3,326
Agawam street,		Bituminous concrete,	230	809
Albany street,	Land of Hampden Paint Co. to Glen road,	Bituminous macadam,	636	1,484
Albemarle street,		Bituminous macadam,	1,493	4,977
Alden street,	Walnut street to Eastern avenue,	Bituminous concrete,	1,349	4,533
Alden street,	Eastern avenue to railroad,	Tar top,	715	2,453
Alden street,	Railroad, easterly,	Water-bound macadam,	660	2,617
Alderman street,		Bituminous macadam,	1,325	5,444
Alexander street,		Water-bound macadam,	414	1,380
Alfred street,		Water-bound macadam,	490	1,635
Allen street,	Mill street to N. E. R. R.,	Water-bound macadam,	4,017	*13,798
Allendale street,		Water-bound macadam,	663	2,094
Amaron street,		Bituminous macadam,	408	1,475
Amherst street,	Harvard to Monmouth,	Water-bound macadam,	1,233	4,069
Andrew street,	State to Dawes,	Water-bound macadam,	1,323	4,228
Arbor street,		Water-bound macadam,	437	1,222
Arch street,	Main street, westerly,	Water-bound macadam,	410	1,366
Arch street,	Extension to Birnie avenue,	Bituminous macadam,	293	1,002
Armory street,	N. Y., N. H. & H. R. R. to top of hill,	Water-bound macadam,	1,434	4,656
Armory street,	Top of hill to Liberty street,	Bituminous macadam,	386	1,272
Armory street,	Liberty to Carew,	Water-bound macadam,	1,570	5,203
Armory street,	Carew to Springfield,	Bituminous macadam,	4,267	14,406
Ashley street,		Water-bound macadam,	1,378	4,592
Ashmun street,	Central to Adams,	Bituminous macadam,	266	904
Auburn street,		Water-bound macadam,	787	1,942

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Autumn street,		Bituminous concrete,	206	531
†Avon place,		Water-bound macadam,	711	2,924
Bailey square,	See Locust street,	Water-bound macadam,	——	——
Bancroft street,		Water-bound macadam,	1,435	4,865
Banks place,		Water-bound macadam,	225	536
Bartlett street,		Bituminous macadam,	571	2,210
Bay street,	St. James avenue to Catharine street,	Bituminous concrete,	2,772	9,718
Bay street,	N. E. R. R. to Cambridge street,	Water-bound macadam,	416	1,387
Bay street,	Cambridge to Sycamore,	Bituminous macadam,	684	2,360
Beaumont street,	Dickinson street to Belmont avenue,	Water-bound macadam,	689	2,295
Beech street,		Water-bound macadam,	528	1,303
Beechwood street,	Sumner avenue to Spruceland avenue,	Water-bound macadam,	501	1,670
Belmont avenue,	Sumner avenue to White street,	Bituminous macadam,	3,634	19,434
Belmont place,		Water-bound macadam,	221	669
Benton street,		Bituminous macadam,	1,485	5,131
Berkeley street,		Water-bound macadam,	453	1,510
Berkshire avenue, I.O.,	Chestnut street, westerly, south side of tracks,	Glutrin-bound macadam,	668	1,128
Berkshire avenue, I.O.,	Chestnut street, westerly, south side of tracks,	Water-bound macadam,	618	1,030
Berkshire avenue, I.O.,	Chestnut street, westerly, north side of tracks,	Glutrin-bound macadam,	2,167	3,649
Berkshire avenue, I.O.,	State to Oak street, between tracks,	Water-bound macadam,	——	**31,291
Berkshire street, I. O.,	Chestnut to Oak,	Water-bound macadam,	1,400	6,533
Birnie avenue,	Plainfield to Greenwich street,	Bituminous macadam,	1,667	5,589
Birnie avenue,	Greenwich street to Wason avenue,	Water-bound macadam,	3,369	8,077
Blake Hill,		Water-bound macadam,	347	628
Bliss street,	Water street to N. Y., N. H. & H. R. R.,	Water-bound macadam,	266	852
Bloomfield street,		Bituminous macadam,	1,939	6,614
Bond street,	Main street to foot of hill,	Tar top,	1,520	5,076
Bond street,	Foot of hill to Chestnut street,	Water-bound macadam,	49	154

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Bowdoin street,	St. James avenue to Ingersoll grove,	Water-bound macadam,	1,944	6,477
Bowles street,	Bay to McKnight,	Water-bound macadam,	750	2,500
Bowles street,	McKnight to Pease,	Bituminous macadam,	400	1,331
Boylston street,		Water-bound macadam,	864	1,921
Bradford street,	Plainfield to Fulton,	Water-bound macadam,	741	2,472
Bridge street,	Main street, westerly 493',	Bituminous concrete,	493	1,746
Bridge street,	Water street to Toll bridge,	Granite blocks on sand,	249	713
Broad street,		Water-bound macadam,	959	3,177
Broadway,		Bituminous macadam,	705	3,219
Brookline avenue,		Water-bound macadam,	615	2,050
Brown street,		Bituminous macadam,	508	1,687
Bryant street,		Bituminous macadam,	897	2,990
Buckingham place,		Water-bound macadam,	275	916
Buckingham street,		Water-bound macadam,	2,006	6,678
Burr street,		Bituminous macadam,	840	2,339
Butler street,		Water-bound macadam,	1,525	2,885
Byers street,	State to Frost,	Water-bound macadam,	480	1,193
Calhoun street,		Water-bound macadam,	1,129	3,435
Cambridge street,		Bituminous macadam,	1,564	4,899
Carew street,	Main to Chestnut,	Bituminous macadam,	1,620	5,463
Carew street,	Chestnut to near Bartlett,	Water-bound macadam,	998	2,209
Carew street,	Armory street, westerly,	Bituminous macadam,	704	2,382
Carew street,	Armory to Liberty,	Bituminous macadam,	1,632	7,382
Cass street,		Water-bound macadam,	1,762	5,407
Caseland street,		Bituminous macadam,	1,154	5,419
Catharine street,	Bay to Dartmouth,	Water-bound macadam,	150	493
Cedar street,		Tar top,	1,725	5,992
Central street,	Main to Ashmun,	Bituminous concrete,	885	2,809

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Central street,	Ashmun to Maple,	Water-bound macadam,	476	1,285
Central street,	Maple to Mill,	Water-bound macadam,	4,018	10,023
Central street,	Cedar to Mill,	Water-bound macadam,	——	**2,705
†Chapin terrace,	Chestnut to Marvin street,	Water-bound macadam,	601	3,112
Chapin terrace,	Marvin street to 125′ east of Narragansett,	Bituminous macadam,	466	2,729
Charles street,	Liberty to Franklin,	Bituminous concrete,	626	1,940
Charles street,	Liberty street to land of B. & A. R. R.,	Granite blocks on sand,	150	376
Chase avenue,		Water-bound macadam,	583	1,943
Cherryvale avenue,		Water-bound macadam,	687	2,290
Chester street,		Bituminous macadam,	910	2,702
Chestnut street,	State street to top of hill,	Glutrin-bound macadam,	207	552
Chestnut street,	Top of hill to Edwards street,	Bituminous concrete,	599	1,901
Chestnut street,	Edwards street to Harrison avenue,	Rocmac,	173	590
Chestnut street,	Harrison avenue to Pearl street,	Bituminous concrete,	281	2,630
Chestnut street,	Bridge to Worthington,	Bituminous concrete,	441	
Chestnut street,	Worthington to Linden,	Granite blocks on sand,	2,368	8,389
Chestnut street,	Everett to Carew,	Granite blocks on sand,	354	718
Chestnut street,	Jefferson avenue to Springfield street, west side,	Water-bound macadam,	1,465	1,733
Chestnut street,	Jefferson avenue to Springfield street, east side,	Bituminous macadam,	——	4,604
Chestnut street,	Montmorenci to Springfield,	Water-bound macadam,	——	**2,908
Church street,		Tar top,	832	2,579
Churchill street,		Water-bound macadam,	575	1,919
Clantoy street,		Bituminous macadam,	1,251	4,224
Clarendon street,	Bay street to Dartmouth terrace,	Water-bound macadam,	1,592	6,038
Clark street,		Water-bound macadam,	619	1,100
Clifford street,		Bituminous macadam,	449	1,497
Clifton avenue,		Bituminous macadam,	518	1,140
Cliftwood street,		Bituminous macadam,	458	1,163

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Clinton street,		Bituminous concrete,	672	1,813
College street,	State street to Wilbraham road,	Water-bound macadam,	527	1,522
College street,	State street to 300′ north of Shattuck street,	Bituminous macadam,	1,078	3,864
Commonwealth ave.,	Belmont avenue to Glenwood street,	Bituminous macadam,	1,094	3,506
Concord terrace,		Bituminous macadam,	339	1,507
Congress street,	Main to North,	Bituminous concrete,	932	2,386
Congress street,	North to Chestnut,	Water-bound macadam,	558	1,379
Continental avenue,		Bituminous macadam,	453	1,510
Cornell street,		Water-bound macadam,	1,283	4,275
Cortland street,		Bituminous macadam,	650	2,167
Cross street,	Willow to Maple,	Water-bound macadam,	608	1,416
Crystal avenue,		Water-bound macadam,	930	3,100
Cumberland street,	Main to North,	Bituminous macadam,	372	1,240
Cumberland street,	North to Chestnut,	Water-bound macadam,	426	1,420
Cypress street,	Main to Fulton,	Granite blocks on sand,	644	2,433
Dale street,		Water-bound macadam,	812	2,051
Dartmouth street,		Water-bound macadam,	1,132	5,159
Dartmouth terrace,	Cornell street, southerly,	Water-bound macadam,	488	2,544
Dartmouth terrace,	Worthington to Clarendon, west roadway,	Bituminous macadam,	411	939
Dawes street,		Bituminous macadam,	1,237	4,125
Daytona street,		Bituminous macadam,	590	1,966
Demond avenue,		Water-bound macadam,	859	2,863
Dickinson street,	Between tracks on hill,	Bituminous macadam,	692	354
Dickinson street,	Bailey square to Marengo park,	Water-bound macadam,	761	3,733
Dickinson street,	Marengo park to the "X",	Bituminous concrete,	3,122	16,402
Dickinson street,	"X" to Longmeadow line,	Bituminous macadam,	2,668	11,215
Donald street,		Bituminous macadam,	444	1,480
Dorchester street,		Water-bound macadam,	567	1,887

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Douglas street,		Water-bound macadam,	540	1,800
Dresden street,		Bituminous macadam,	748	2,489
Dunmoreland street,	Wilbraham road to Westford avenue,	Bituminous macadam,	1,481	4,945
Eagle street,		Water-bound macadam,	556	1,855
East Hooker street,		Water-bound macadam,	679	1,786
Eastern avenue,	Wilbraham road to King street,	Water-bound macadam,	2,103	7,010
Eastern avenue,	King to Alden street,	Tar top,	1,257	4,460
Eastern avenue,	Alden to Hickory street,	Water-bound macadam,	876	2,894
Edwards street,		Water-bound-macadam,	675	2,219
Elliott street,		Bituminous concrete,	1,007	3,342
Elm street,	Court Square avenue to Water street,	Bituminous concrete,	606	2,076
Elm street,	Water street to N. Y., N. H. & H. R. R.,	Water-bound macadam,	243	608
Elmwood street,		Water-bound macadam,	886	2,738
Essex street,	Main to North,	Tar top,	891	2,871
Essex street,	North to Chestnut,	Water-bound macadam,	652	2,101
Euclid avenue,		Water-bound macadam,	1,169	3,896
Everett street,		Water-bound macadam,	1,500	4,859
Fairfield street,		Water-bound macadam,	882	2,940
Farnsworth street,	Hamburg street, easterly, 20′ wide,	Water-bound macadam,	513	1;710
Farnsworth street,	Extension to Chicopee line,	Bituminous macadam,	882	2,983
Federal street,	At Pearl street,	Bituminous concrete,	124	464
Federal street,	Pearl to Summer,	Water-bound macadam,	949	3,814
Firglade avenue,	Maplewood terrace to Pineywoods avenue,	Water-bound macadam,	1,332	4,433
Firglade avenue,	Pineywoods avenue to Washington boulevard,	Bituminous macadam,	520	1,733
Fisk avenue,		Water-bound macadam,	1,682	6,240
Florence street,	Pine to Hancock,	Water-bound macadam,	1,582	4,346
Florence street,	Hancock to Walnut,	Bituminous macadam,	281	927
Florentine Gardens,		Water-bound macadam,	706	3,501

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Florida street,	Bay street to St. James avenue,	Tar top,	543	1,811
Florida street,	St. James avenue to Ingersoll grove,	Water-bound macadam,	1,649	5,057
Forest street,		Water-bound macadam,	784	2,502
Forest Park avenue,	Sumner to Pineywoods,	Bituminous macadam,	832	3,015
Forest Park avenue,	Sumner avenue to Forest street,	Water-bound macadam,	752	3,846
Forest Park avenue,	Forest st. to Fort Pleasant ave., 22½′ wide,	Water-bound macadam,	1,760	4,475
Fort street,		Granite blocks on sand,	670	1,770
Fort Pleasant avenue,	West side,	Water-bound macadam,	2,794	10,138
Fort Pleasant avenue,	East side,	Water-bound macadam,	2,674	7,252
Foster street,		Water-bound macadam,	740	2,034
Franklin street,	Main to Webster,	Water-bound macadam,	3,553	12,176
Franklin street,	Webster to Genesee, 20′ wide,	Water-bound macadam,	1,139	3,797
Fremont street,		Bituminous concrete,	780	2,622
Fulton street,	Plainfield to Auburn,	Water-bound macadam,	2,227	6,788
Gardner street,	Main to Water,	Bituminous concrete,	461	1,545
Gardner street,	Water to Hanover,	Water-bound macadam,	653	2,168
Garfield street,		Water-bound macadam,	1,577	5,220
Genesee street,	Liberty to Franklin, 20′ wide,	Water-bound macadam,	276	821
Genesee street,	Franklin to Dunn,	Bituminous macadam,	285	1,026
George street,	Maple street, westerly,	Bituminous macadam,	171	647
Grace street,		Water-bound macadam,	354	885
Grant street,		Water-bound macadam,	577	1,603
Granville street,		Bituminous macadam,	453	1,358
Gray's avenue,		Water-bound macadam,	560	1,300
Greenacre square,		Water-bound macadam,	415	856
Greene street,		Water-bound macadam,	1,347	4,490
Greenleaf street,		Water-bound macadam,	740	3,098
Greenwich street,		Water-bound macadam,	643	2,143

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Greenwood street,	Main to North,	Bituminous concrete,	930	3,110
Greenwood street,	North to Chestnut,	Water-bound macadam,	572	1,897
Grenada terrace,		Bituminous macadam,	1,095	5,820
Grosvenor street,		Water-bound macadam,	738	2,286
Grove street,		Water-bound macadam,	612	1,734
Grover street,		Bituminous macadam,	1,343	4,156
Hall street,		Water-bound macadam,	992	3,307
Hamburg street,	20′ wide,	Water-bound macadam,	574	1,786
Hampden street, I. O.,	Oak to Pine,	Bituminous macadam,	517	2,068
Hampden street,		Bituminous concrete,	606	2,360
Hancock street,	State to Walnut,	Tar top,	3,231	11,396
Hancock street,	Walnut to Clark,	Water-bound macadam,	885	2,949
Harriet street,		Water-bound macadam,	816	2,720
Harvard street,		Water-bound macadam,	1,565	5,206
Hawley street,		Bituminous macadam,	368	1,226
Hawthorne street,		Water-bound macadam,	540	1,374
Hebron street,		Water-bound macadam,	698	2,204
Heywood street,		Water-bound macadam,	250	833
Hiawatha street,		Bituminous macadam,	481	1,709
Hickory street,	Walnut to Sheffield, and Alden street, easterly,	Water-bound macadam,	4,710	11,589
Hickory street,	N. Y., N. H. & H. R. R. to Alden street,	Bituminous macadam,	1,080	2,573
High street,	Maple to School,	Tar top,	763	1,926
High street,	School to Walnut,	Water-bound macadam,	1,800	3,618
Hillman street,	Main to Dwight,	Bituminous concrete,	648	2,025
Hollywood street,		Bituminous macadam,	736	2,513
Holyoke street,		Water-bound macadam,	776	2,001
Home street,		Bituminous macadam,	761	2,674
Homer street,		Water-bound macadam,	582	1,940

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Horace street,		Bituminous macadam,	770	2,557
Howard street,	Main to Water,	Bituminous concrete,	944	3,171
Howard street,	Water street to railroad,	Water-bound macadam,	333	1,110
Hubbard avenue,	Willow to Dale street,	Water-bound macadam,	186	341
Huntington street,		Water-bound macadam,	643	2,143
Hyde avenue,		Bituminous macadam,	943	3,151
Ingersoll grove,		Water-bound macadam,	1,395	4,650
Ingraham avenue,		Water-bound macadam,	258	462
Irvington street,		Bituminous macadam,	792	2,840
James street,		Water-bound macadam,	928	2,356
Jasper street,		Water-bound macadam,	983	3,410
Jefferson avenue,		Water-bound macadam,	1,275	6,375
John street,		Water-bound macadam,	640	2,136
Keith street,		Water-bound macadam,	1,107	3,690
Kenwood park,		Water-bound macadam,	721	3,888
Kenwood terrace,		Bituminous macadam,	524	2,307
Kibbe avenue,		Water-bound macadam,	213	710
King street,	Walnut street to N. Y., N. H. & H. R. R.,	Water-bound macadam,	2,568	*8,484
Lafayette street,		Water-bound macadam,	568	1,865
Lebanon street,		Tar top,	1,889	5,118
Leete street,		Bituminous macadam,	971	3,414
Lenox street,		Bituminous macadam,	450	1,200
Lexington avenue,	Chestnut to Massasoit street,	Water-bound macadam,	622	1,659
Lexington street,	Massasoit street, easterly,	Bituminous macadam,	430	1,266
Leyfred terrace,		Water-bound macadam,	625	2,102
Liberty street,	Armory to Carew,	Water-bound macadam,	2,250	5,271
Liberty street,	Across Chicopee road,	Bituminous macadam,	55	306
Liberty street,	Armory to Chicopee line,	Water-bound macadam,	——	**8,860

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Lillian street,		Water-bound macadam,	387	989
Linden street,		Water-bound macadam,	1,287	5,148
Litchfield street,		Water-bound macadam,	384	1,280
Locust street,	Belmont avenue to Dickinson street (includes Bailey square),	Bituminous macadam,	3,068	10,279
Lombard street,		Water-bound macadam,	590	1,677
Longhill street,	Warner street to Sumner avenue,	Water-bound macadam,	475	2,321
Longhill street,	Sumner avenue to Washington boulevard,	Water-bound macadam,	1,741	6,837
†Longmeadow street,	Longhill street to Longmeadow line,	Water-bound macadam,	2,930	7,813
Loring street,		Water-bound macadam,	707	2,294
Lowell street,		Water-bound macadam,	1,390	4,633
Lyman street,	Main to Chestnut,	Granite blocks on sand,	1,305	4,255
Lyman street,	Chestnut to Spring,	Granite blocks on sand,	731	3,044
Lyndale street,		Bituminous macadam,	1,059	3,530
Madison avenue,		Water-bound macadam,	529	1,657
Magnolia terrace,	Sumner avenue to Pineywoods avenue,	Water-bound macadam,	1,141	6,209
Magnolia terrace,	Pineywoods avenue to Washington boulevard,	Bituminous macadam,	312	1,832
Main street,	Locust street to Pecousic avenue,	Tar top,	1,573	7,524
Main street,	Pecousic avenue, southerly,	Water-bound macadam,	1,000	3,517
Main street, I. O.,	Front street to asphalt pavement and asphalt pavement to Wilbraham line,	Water-bound macadam,	5,018	15,856
Main street, I. O.,	Front street to Ludlow bridge,	Water-bound macadam,	——	**9,064
Manhattan street,		Bituminous macadam,	1,101	2,799
Maple court,		Bituminous macadam,	712	1,760
Maple street,	State street to Avon place,	Bituminous concrete,	1,914	7,167
Maple street,	Central street to top of hill,	Rocmac,	725	2,062
Maple street,	Top of hill to Pine street,	Bituminous concrete,	1,039	3,119
Maple street,	Pine to George,	Tar top,	387	1,142

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Maple street,	George to Mill,	Water-bound macadam,	494	1,570
Mapledell street,		Water-bound macadam,	972	3,239
Maplewood terrace,	Ft. Pleasant ave. to Forest Park ave., south side,	Water-bound macadam,	1,301	3,075
Maplewood terrace,	Forest Park avenue to Riverview ter., north side,	Water-bound macadam,	—[illegible]	1,874
Maplewood terrace,	Fort Pleasant ave. to Riverview ter., north side,	Bituminous macadam,	——	1,237
Marble street,		Water-bound macadam,	1,074	3,508
Marengo park,		Water-bound macadam,	1,869	6,230
Margaret street,	Main to Water,	Bituminous concrete,	844	2,861
Margaret street,	Water street to N. Y., N. H. & H. R. R.,	Water-bound macadam,	534	775
Marion street,	Bay to McKnight,	Bituminous macadam,	870	2,898
Market street,		Bituminous concrete,	968	1,887
Mason street,		Bituminous macadam,	661	2,203
Massachusetts avenue,		Bituminous macadam,	1,457	7,346
Massasoit street,	Carew to Prospect,	Water-bound macadam,	851	2,803
Massasoit street,	Prospect to 143′ north of Montmorenci street,	Bituminous macadam,	1,148	3,827
Massasoit street,	Chapin terrace to Pratt street,	Water-bound macadam,	430	1,440
Mattoon street,	(Includes Salem street),	Bituminous concrete,	1,358	4,019
Maynard street,	State to Shattuck,	Bituminous macadam,	782	3,476
McKnight street,	Sherman to Bowles,	Water-bound macadam,	532	1,773
Medford street,		Water-bound macadam,	624	2,080
Merrick street,		Bituminous macadam,	326	1,021
Merwin street,		Water-bound macadam,	713	2,377
Middlesex street,	Wilbraham road to Marlborough street,	Bituminous macadam,	787	2,623
Mill street,	Main to Dickinson,	Water-bound macadam,	3,250	13,564
Mill street extension,	Pecousic avenue, easterly,	Bituminous macadam,	194	1,206
Monmouth street,		Water-bound macadam,	1,168	4,000
Monroe street,	Hancock street to Eastern avenue,	Water-bound macadam,	1,345	3,736
Monroe street,	Eastern avenue to Colton street,	Bituminous macadam,	281	780

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Montmorenci street,		Water-bound macadam,	620	2,067
Montrose street,		Bituminous macadam,	973	3,242
Mooreland street,		Bituminous macadam,	1,417	3,723
Morgan street,		Water-bound macadam,	852	2,914
Morningside park,	White street to Trinity terrace,	Bituminous macadam,	330	1,232
Morris street,		Water-bound macadam,	1,022	3,031
Mountainview street,		Water-bound macadam,	682	2,330
Mulberry street,		Water-bound macadam,	2,015	5,706
Murray Hill avenue,		Water-bound macadam,	600	2,000
Myrtle street,		Water-bound macadam,	484	997
Narragansett street,		Bituminous macadam,	1,272	4,364
Nelson street,		Bituminous macadam,	695	2,134
Norfolk street,		Bituminous macadam,	824	3,160
North street,	Carew street to Jefferson avenue,	Tar top,	2,045	8,243
North street,	Jefferson avenue to Cumberland street,	Water-bound macadam,	1,520	4,505
Northampton avenue,	Wilbraham road to Beverly street,	Water-bound macadam,	1,229	4,096
Northampton avenue,	Beverly street to south side of Gunn square,	Bituminous macadam,	438	1,524
Norwood street,		Water-bound macadam,	1.117	2,911
Oak street,		Bituminous concrete,	1,356	4,462
Oak street, I. O.,	Water to Main and Worcester to Berkshire,	Water-bound macadam,	1,105	4,791
Oak street, I. O.,	Worcester to Berkshire,	Water-bound macadam,	——	**1,610
Oak Grove avenue,		Bituminous macadam,	2,792	9,709
Oakland street,	Sumner avenue to Dickinson street,	Bituminous concrete,	1,565	7,075
Oakland street,	Dickinson to Allen,	Water-bound macadam,	2,584	8,672
Olive street,		Water-bound macadam,	478	1,248
Orange street,	Bailey square to Allen street,	Bituminous macadam,	4,027	15,702
Orchard street,	Plainfield street, westerly,	Water-bound macadam,	1,040	3,467
Orchard street,	Extension to river,	Bituminous macadam,	383	1,247

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Orleans street,		Water-bound macadam,	1,509	4,293
Ormond street,		Bituminous macadam,	365	1,222
Osgood street,		Water-bound macadam,	890	2,948
Oxford street,		Bituminous macadam,	663	2,219
Page boulevard,	St. James avenue to east line Westinghouse Co. property,	Bituminous macadam,	8,034	30,691
Palmer avenue,		Water-bound macadam,	991	3,177
Park street,	Foot of hill to Maple street,	Water-bound macadam,	539	1,052
Parkwood street,		Water-bound macadam,	450	1,500
Pasco road, I. O.,	Essex street, southerly,	Bituminous macadam,	611	2,475
Patton street,	Main to North,	Tar top,	868	3,007
Patton street,	North to Chestnut,	Water-bound macadam,	705	2,350
Pearl street,	Chestnut to Spring,	Bituminous concrete,	983	2,817
Pearl street,	Spring to Byers,	Water-bound macadam,	237	696
Pecousic avenue,	Gardner to Main street,	Bituminous macadam,	2,301	17,267
Pecousic avenue,	Main street to Leary's line,	Bituminous concrete,	2,691	8,727
Pecousic avenue,	Leary's line to Longhill street,	Bituminous macadam,	1,420	3,313
Pendleton avenue,		Tar top,	2,586	6,467
Phoenix street,		Bituminous macadam,	602	2,101
Pine street,	Mill to Maple,	Water-bound macadam,	1,003	1,348
Pine street,	Maple to Walnut,	Bituminous concrete,	3,417	12,996
Pineywoods avenue,	Washington boulevard to Florentine Gardens,	Bituminous macadam,	490	1,633
Pineywoods avenue,	Florentine Gardens to Washington road,	Water-bound macadam,	1,273	4,243
Pineywoods avenue,	Washington road to Forest Park avenue,	Bituminous macadam,	329	1,097
Plainfield street,	West street to Wason avenue,	Water-bound macadam,	4,999	13,308
Plainfield street,	Washburn street to Wason avenue,	Water-bound macadam,	——	**3,953
Plainfield street,	Wason avenue to Chicopee line,	Bituminous macadam,	423	979
Pleasant street,		Tar top,	428	1,141

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Plymouth street,		Water-bound macadam,	479	1,597
Pomona street,		Bituminous macadam,	882	3,157
Portland street,		Water-bound macadam,	610	2,033
†Pratt street,		Water-bound macadam,	600	2,000
Prince street,		Bituminous macadam,	327	1,098
Princeton street,	Bay to Cornell,	Water-bound macadam,	1,776	7,219
Princeton street,	Bay street to St. James avenue,	Water-bound macadam,	——	**1,496
Prospect street,	Massasoit to Carew,	Water-bound macadam,	817	2,996
Queen street,	Walnut to Hancock,	Bituminous macadam,	742	1,897
Quincy street,	Oak street to Eastern avenue,	Water-bound macadam,	2,704	7,780
Railroad street,	Main street, westerly,	Granite blocks on sand,	176	500
Randolph street,	Sumner avenue to Forest Park avenue,	Water-bound macadam,	916	3,053
Reed street,		Water-bound macadam,	660	2,493
Revere street,		Bituminous macadam,	1,278	4,459
Richelieu court,		Bituminous macadam,	446	1,403
Ridgewood place,		Water-bound macadam,	537	1,193
Ridgewood terrace,		Water-bound macadam,	886	1,643
Ringgold street,		Water-bound macadam,	730	2,432
Riverview street,		Water-bound macadam,	625	2,094
Riverview terrace,	Ft. Pleasant ave. to Riverview st., north driveway,	Water-bound macadam,	281	721
Rochelle street,		Bituminous macadam,	856	2,856
Roseland street,		Bituminous macadam,	842	2,807
Rowland avenue,	Plainfield street to Fisk avenue,	Water-bound macadam,	690	1,674
Rutland street,		Tar top,	277	926
Rutledge avenue,		Water-bound macadam,	516	1,599
Salem street,	(See Mattoon street)			
Sargeant street,		Water-bound macadam,	860	3,126
School street,		Bituminous concrete,	1,422	4,799

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Scott street,		Bituminous macadam,	673	2,355
Seventh street,		Water-bound macadam,	822	2,529
Sharon street,	Main to North,	Bituminous concrete,	917	2,855
Sharon street,	North to Chestnut,	Water-bound macadam,	546	1,646
Shefford street,	Springfield to Springfield,	Bituminous macadam,	1,164	3,879
Sheldon street,		Water-bound macadam,	651	2,027
Sherman street,		Water-bound macadam,	1,623	5,394
Silver street,		Bituminous macadam,	626	2,087
Springfield street,	Chestnut street to Atwater terrace and Hamburg street to Chicopee line,	Water-bound macadam,	——	*1,242
Springfield street,	Chestnut to top of hill,	Water-bound macadam,	1,542	3,639
Springfield street,	Russell's, south line, to Shefford street,	Bituminous macadam,	369	1,972
Springfield street,	Shefford to Armory,	Bituminous concrete,	1,037	4,800
Springfield street,	Armory street intersection,	Bituminous macadam,	225	780
Springfield street,	Armory street to Chicopee line,	Water-bound macadam,	1,027	2,738
Spruce street,		Water-bound macadam,	699	1,737
Spruceland avenue,		Water-bound macadam,	1,370	4,566
Stafford street,		Bituminous macadam,	460	1,567
State street,	Chestnut street to City Library,	Granite blocks on sand,	197	542
State street,	Library to east line of High School of Commerce,	Water-bound macadam,	2,211	14,865
Stearns square,	West of Park,	Tar top,	256	451
Stearns square,	East of Park,	Tar top,	259	456
Stebbins street,		Water-bound macadam,	973	3,243
St. James avenue,	State street to N. Y., N. H. & H. R. R.,	Tar top,	4,412	20,928
Stockbridge street,	Willow to foot of hill,	Water-bound macadam,	318	499
Summer street,	Spring street to 85' west of Federal,	Granite blocks on sand,	2,613	8,176
Sumner avenue,	Longhill street to Forest Park entrance,	Water-bound macadam,	3,219	12,072
Sumner avenue,	Beechwood to Forest Park avenue, south side,	Bituminous macadam,	——	3,155

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Sumner avenue,	Forest Park entrance to Lenox street, north side,	Bituminous macadam,	1,700	4,236
Sumner avenue,	Forest Park entrance to Oakland street, south side,	Water-bound macadam,	393	895
Sumner avenue,	Lenox street to 90′ west of Ventura,	Bituminous concrete,	484	5,626
Sumner avenue,	90′ west of Ventura to Daviston street,	Bituminous macadam,	2,948	19,452
Sumner terrace,		Bituminous macadam,	427	2,268
Talcott avenue,		Bituminous macadam,	721	3,134
Taylor street,	Main to Dwight,	Bituminous concrete,	552	1,857
Temple street,		Water-bound macadam,	953	2,570
Tenth street,	Main to North,	Bituminous concrete,	908	2,574
Tenth street,	North to Chestnut,	Water-bound macadam,	609	1,724
Terrence street,		Water-bound macadam,	714	2,380
Thomas street,		Water-bound macadam,	583	1,945
Thompson street,	State to Bay,	Tar top,	786	2,582
Thompson street,	Bay to Worthington,	Water-bound macadam,	1,307	4,024
Tracy street,		Bituminous macadam,	425	1,363
Tyler street,	Oak to Hancock,	Water-bound macadam,	1,346	4,002
Tyler street,	Hancock street to Eastern avenue,	Bituminous macadam,	1,343	4,326
Union street,	Water street to N. Y., N. H. & H. R. R.,	Water-bound macadam,	414	1,702
Union street,	Water to Main,	Bituminous concrete,	935	3,049
Union street,	Willow to foot of hill,	Water-bound macadam,	394	1,160
Union street,	Maple to Mulberry and Oak st. to Eastern avenue,	Water-bound macadam,	4,088	14,251
Union street,	Mulberry to Walnut,	Bituminous concrete,	859	3,006
Union street,	Walnut to Oak,	Bituminous concrete,	424	1,122
Union street,	Eastern avenue to Colton street,	Bituminous macadam,	291	894
Vassar street,		Bituminous macadam,	495	1,685
Ventura street,		Bituminous macadam,	804	2,680
Vine street,		Water-bound macadam,	745	1,892
Vinton street,		Water-bound macadam,	612	2,465

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TABLE OF SURFACE PAVEMENT.—CONTINUED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Walnut street,	Hickory street to top of hill,	Water-bound macadam,	440	1,961
Walter street,		Bituminous macadam,	390	1,300
Waltham avenue,		Water-bound macadam,	985	2,628
Warner street,		Water-bound macadam,	691	2,152
Warriner avenue,		Water-bound macadam,	450	1,601
Warwick street,	Heywood street, easterly,	Water-bound macadam,	811	2,703
Washburn street,		Water-bound macadam,	*1,400	4,667
Washington road,	Maplewood terrace to Pineywoods avenue,	Water-bound macadam,	1,083	3,610
Washington road,	Pineywoods avenue to Washington boulevard,	Bituminous macadam,	508	1,693
Wason avenue,	Main street to B. & M. R. R.,	Water-bound macadam,	505	1,718
Wason avenue,	Main street to B. & M. R. R.,	Water-bound macadam,	——	**449
Wason avenue,	B. & M. R. R. to Plainfield street,	Bituminous macadam,	1,321	4,370
Water street,	Hampden to Bridge,	Granite blocks on sand,	586	3,906
Water street,	Bridge street to Whitney place,	Tar top,	3,504	10,856
Water street,	Whitney place to Gardner street,	Bituminous macadam,	725	4,054
Waverly street,		Water-bound macadam,	850	2,910
Webster street,		Water-bound macadam,	606	2,020
Wellesley street,		Water-bound macadam,	444	1,480
Wellington street,	Wilbraham road to Marlborough street,	Bituminous macadam,	825	2,750
West street,	Hampden park to North End bridge,	Bituminous concrete,	1,073	2,996
Westernview street,		Water-bound macadam,	650	2,167
Westford avenue,	Wilbraham road to Gunn square,	Water-bound macadam,	1,380	6,133
Westminster street,		Water-bound macadam,	1,911	6,388
White street,	Allen street to St. Railway turn-out and Orange street to Sumner avenue,	Tar top,	3,459	12,057
White street,	East and west sides of St. Railway turn-out,	Bituminous concrete,	956	1,763
White street,	Sumner avenue to Longmeadow line,	Water-bound macadam,	3,638	6,358
White street,	Belmont avenue to Longmeadow line,	Water-bound macadam,	——	**1,756

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TABLE OF SURFACE PAVEMENT.—CONCLUDED.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.
Whitney place,		Bituminous macadam,	455	1,202
Whittier avenue,		Bituminous macadam,	1,212	4,372
Wight place,		Water-bound macadam,	388	692
Wilbraham avenue,	Wilbraham road to King street,	Water-bound macadam,	2,046	6,820
Wilbraham avenue,	King to Alden,	Bituminous macadam,	1,182	3,940
Wilbraham road,	N. Y., N. H. & H. R. R. to Massachusetts ave.,	Bituminous concrete,	1,230	5,830
Wilbraham road,	Massachusetts avenue to Homer street,	Bituminous macadam,	610	2,554
Wilbraham road,	Homer to Benton, south side,	Water-bound macadam,	2,604	5,142
Wilbraham road,	Homer to Benton, north side,	Bituminous macadam,	——	5,293
Wilbraham road,	Homer street to Lakeside avenue,	Water-bound macadam,	——	**2,855
Wilcox street,	Water street, westerly,	Water-bound macadam,	385	984
Wilcox street,	Water to Main,	Bituminous concrete,	928	3,062
Willard avenue,		Bituminous macadam,	766	2,328
William street,	Water street to N. Y., N. H. & H. R. R.,	Water-bound macadam,	466	1,381
William street,	Water to Main,	Bituminous concrete,	902	2,978
Willow st. extension,	Adams to Marble,	Bituminous macadam,	826	4,878
Winchester street,		Bituminous macadam,	378	1,252
Windsor street,		Bituminous macadam,	679	2,241
Winthrop street,		Water-bound macadam,	659	2,397
Wolcott street,		Bituminous macadam,	439	1,463
Woodside terrace,		Water-bound macadam,	937	3,123
Worcester avenue,		Bituminous macadam,	811	2,709
Worcester street, I. O.,	Pine street to Fiberloid Co.'s driveway, 18' wide,	Water-bound macadam,	4,994	10,988
Worthington street,	Broadway to Main street,	Bituminous concrete,	404	1,418
Worthington street,	Spring street to St. James avenue,	Water-bound macadam,	4,894	15,019
Yale street,		Water-bound macadam,	1,493	5,142
York street,	Main street to Pecousic avenue,	Bituminous concrete,	407	1,085
York street,	Pecousic avenue to N. Y., N. H. & H. R. R.,	Water-bound macadam,	593	1,912

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TABLE OF SURFACE PAVEMENT.

RECAPITULATION.

	Miles.	Square yards.
Water-bound macadam,	51.85	934,199
Bituminous macadam,	24.83	498,225
Bituminous concrete,	9.15	171,883
Tar top,	6.48	119,462
Granite on sand,	1.90	34,822
Glutrin-bound macadam,	.58	5,329
Rocmac,	.17	2,652
	94.96	
Gravel roads,	46.61	
Dirt roads,	7.95	

*Includes macadam laid by Springfield Street Railway Company.

**Macadam laid by Springfield Street Railway Company.

†Macadam laid by private parties.

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STREET MAINTENANCE.

RESURFACING.

Streets.	Limits.	Materials.	Length in feet.	Area in sq. yds.	Depreciation.	Indirect Cost.	Total Cost.	Cost per sq. yd.
Alden street,	Hancock to Eastern ave.,	Bituminous con.,	1,349	4,533	$42.02	$280.15	$4,762.67	$1.05
Alden street,	Easterly of Eastern ave.,	Tar top,	715	2,453	18.74	125.10	1,385.79	.565
Autumn street,		Tar top,	206	531	13.78	91.85	586.29	1.104
Bond street,	Main to Chestnut,	Tar top,	1,520	5,076	34.18	227.90	2,596.25	.511
Cedar street,	Walnut to Central,	Tar top,	1,725	5,992	23.13	185.04	2,327.40	.389
Central street,	Ashmun to Maple,	Water-bound mac.,	476	1,285	2.58	25.80	318.63	.248
Church street,		Tar top,	832	2,579	10.73	71.55	1,006.10	.390
Clinton street,		Bituminous con.,	672	1,813	21.59	143.95	1,907.94	1.052
Congress street,	Main to North,	Bituminous con.,	932	2,386	21.29	141.90	2,587.63	1.084
Eastern avenue,	King to Alden street,	Tar top,	1,257	4,460	29.39	195.90	2,311.85	.518
Fremont street,	Main to Water,	Bituminous con.,	780	2,622	38.13	254.25	3,274.83	1.249
Greenwood street,	Main to North,	Bituminous con.,	930	3,110	22.82	152.10	3,100.41	.997
Hancock street,	State street southerly,	Tar top,	3,231	11,396	56.01	640.56	4,419.30	.388
Harrison avenue,	Main to Market street,	Sheet asphalt,	210	816	8.04	53.20	995.74	1.22
Lebanon street,		Tar top,	1,889	5,118	18.62	148.98	1,988.00	.388
Main street,	East side, south of Bliss,	Wood block,	506	971	21.14	239.53	2,624.95	2.703
Margaret street,	Main to Water,	Bituminous con.,	844	2,861	23.30	155.40	2,773.51	.969
Mattoon and Salem streets,		Bituminous con.,	1,358	4,019	37.72	251.55	4,448.09	1.107
Oakland street,	Dickinson to Sumner av.,	Bituminous con.,	1,565	7,075	51.39	274.04	6,898.11	.975
Pearl street,	Spring to Byers,	Water-bound mac.,	234	575	2.27	25.67	212.02	.369
Pendleton avenue,		Tar top,	2,586	6,467	27.32	182.15	2,600.62	.402

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STREET MAINTENANCE.

RESURFACING.—*Continued.*

Streets.	Limits.	Materials.	Length in feet.	Area in sq. yds.	Depreciation.	Indirect Cost.	Total Cost.	Cost per sq. yd.
School street,		Bituminous con.,	1,422	4,799	$38.20	$254.70	$4,953.16	$1.032
Sharon street,	Main to North,	Bituminous con.,	917	2,855	24.57	163.75	3,333.65	1.167
Springfield street hill,		Water-bound mac.,	1,500	3,844	7.68	51.25	427.75	.111
State street,	North side, library to Commercial High Sc'l,	Water-bound mac.,	2,225	4,950	11.00	124.70	1,020.26	.206
Tenth street,	Main to North,	Bituminous con.,	908	2,574	23.44	156.29	2,775.00	1.078
Union street,	Walnut to Mulberry,	Bituminous con.,	859	3,006	41.92	335.34	3,928.61	1.307
Union street,	Main to Water,	Bituminous con.,	935	3,049	27.31	182.10	3,171.05	1.04
Water street,	Bridge to Hampden,	Granite block,	586	3,906	42.88	285.90	3,324.28	.851
Water street,	Whitney ave. to Gardner,	Tar top,	765	5,276	30.52	345.87	2,589.40	.490
White street,	Allen to Sumner avenue,	Tar top,	3,459	12,057	69.41	370.20	5,870.26	.487
White street,	At St. Railway turnout,	Bituminous con.,	956	1,763	14.48	77.24	1,793.98	1.017
Wilcox street,		Bituminous con.,	928	3,062	44.83	298.85	3,402.86	1.111
Williams street,	Main to Water,	Bituminous con.,	902	2,978	24.97	166.35	2,897.72	.973
Totals,			40,179	130,257	$927.08	$6,690.31	$92,614.11	

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STREET MAINTENANCE.

RESURFACING RECAPITULATION.

	Length in ft.	Area in sq. yds.	Cost per sq. yd.	Cost.
Bituminous concrete,	16,257	52,505	$1.067	$56,009.22
Granite block,	586	3,906	.851	3,324.28
Sheet asphalt,	210	816	1.22	995.74
Tar top,	18,185	61,405	.451	27,681.26
Water-bound macadam,	4,435	10,654	.186	1,978.66
Wood block,	506	971	2.703	2,624.95
Total,	40,179	130,257	.....	$92,614.11

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STREET MAINTENANCE.

REPAIRS.

Street.	Gravel.	Surface. Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Albany street,	$169.30	....	....	....	....	....	$169.30
Allen street,	1,804.83	....	....	....	....	....	1,804.83
Amherst street,	....	$0.83	....	....	....	....	.83
Arch street,	4.00	....	....	....	....	....	4.00
Armory street,	....	704.47	....	....	....	$33.27	737.74
Autumn street,	....	67.73	....	....	....	....	67.73
Bartlett street,	....	21.25	....	....	....	....	21.25
Bay road,	593.15	....	....	....	....	....	593.15
Beaumont street,	76.42	....	....	....	....	....	76.42
Beechwood street,	....	41.69	....	....	....	....	41.69
Belmont avenue,	....	7.12	....	....	....	15.48	22.60
Belvidere avenue,	9.84	....	....	....	....	....	9.84
Berendo avenue,	5.99	....	....	....	....	....	5.99
Berkshire avenue,	31.92	1,302.21	....	....	....	14.52	1,348.65
Berkshire avenue, I. O.,	511.38	....	....	....	....	....	511.38
Berkshire street, I. O.,	557.96	123.13	....	....	$54.03	....	735.12
Beverly street,	2.78	....	....	....	....	....	2.78
Biltmore street,	6.01	....	....	....	....	....	6.01
Bircham Bend road,	16.53	....	....	....	....	....	16.53
Birnie avenue,	....	395.60	....	....	61.56	....	457.16
Boston road,	327.22	....	$177.05	....	....	14.52	518.79
Bridge street,	....	285.57	160.55	....	....	....	446.12
Bristol street,	4.82	....	....	....	....	....	4.82
Broadway,	....	107.71	....	....	....	....	107.71
Buckingham street,	....	6.05	....	....	....	....	6.05
Burlington street,	3.01	....	....	....	....	....	3.01
Byers street,	....	58.01	....	....	....	....	58.01

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STREET MAINTENANCE.

REPAIRS.—*Continued.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Carew street,	$80.38	$18.59	....	....	....	$14.52	$113.49
Caseland street,	....	2.59	....	....	....	....	2.59
Cass street,	....	594.21	....	....	....	....	594.21
Catharine street,	....	....	$44.95	....	....	....	44.95
Cedar street,	....	....	....	....	....	14.52	14.52
Center street,	18.02	....	....	....	....	....	18.02
Central street,	....	344.14	....	....	....	14.52	358.66
Chapel street,	12.56	....	....	....	....	....	12.56
Charles street,	....	131.80	....	....	....	....	131.80
Cherry street,	2.78	....	....	....	....	....	2.78
Cherry lane,	132.39	....	....	....	....	....	132.39
Chestnut street,	....	1,670.08	28.97	....	....	45.48	1,744.53
Chicopee road,	140.29	....	....	....	....	....	140.29
Church street,	....	35.79	....	....	....	....	35.79
Cleveland street,	13.82	....	....	....	....	....	13.82
Clyde street,	14.99	....	....	....	....	....	14.99
College street,	9.79	....	....	....	....	....	9.79
Collins street,	2.78	....	....	....	....	....	2.78
Commonwealth avenue,	3.00	....	....	....	....	....	3.00
Converse street,	4.75	....	....	....	....	....	4.75
Cooley place,	43.47	....	....	....	....	....	43.47
Cortland street,	2.78	....	....	....	....	....	2.78
Cottage street,	49.16	....	....	....	....	....	49.16
Court street,	....	....	44.28	....	....	....	44.28
Crane street,	9.04	....	....	....	....	....	9.04
Cross street,	....	....	....	....	$16.04	....	16.04
Cypress street,	....	....	38.10	....	....	....	38.10

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STREET MAINTENANCE.

REPAIRS.

Street.	Gravel.	Surface. Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Albany street,	$169.30	....	....	....	....	....	$169.30
Allen street,	1,804.83	....	....	....	....	....	1,804.83
Amherst street,	....	$0.83	....	....	....	....	.83
Arch street,	4.00	....	....	....	....	....	4.00
Armory street,	....	704.47	....	....	....	$33.27	737.74
Autumn street,	....	67.73	....	....	....	....	67.73
Bartlett street,	....	21.25	....	....	....	....	21.25
Bay road,	593.15	....	....	....	....	....	593.15
Beaumont street,	76.42	....	....	....	....	....	76.42
Beechwood street,	....	41.69	....	....	....	....	41.69
Belmont avenue,	....	7.12	....	....	....	15.48	22.60
Belvidere avenue,	9.84	....	....	....	....	....	9.84
Berendo avenue,	5.99	....	....	....	....	....	5.99
Berkshire avenue,	31.92	1,302.21	....	....	....	14.52	1,348.65
Berkshire avenue, I. O.,	511.38	....	....	....	....	....	511.38
Berkshire street, I. O.,	557.96	123.13	....	....	$54.03	....	735.12
Beverly street,	2.78	....	....	....	....	....	2.78
Biltmore street,	6.01	....	....	....	....	....	6.01
Bircham Bend road,	16.53	....	....	....	....	....	16.53
Birnie avenue,	....	395.60	....	....	61.56	....	457.16
Boston road,	327.22	....	$177.05	....	....	14.52	518.79
Bridge street,	....	285.57	160.55	....	....	....	446.12
Bristol street,	4.82	....	....	....	....	....	4.82
Broadway,	....	107.71	....	....	....	....	107.71
Buckingham street,	....	6.05	....	....	....	....	6.05
Burlington street,	3.01	....	....	....	....	....	3.01
Byers street,	....	58.01	....	....	....	....	58.01

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STREET MAINTENANCE.

REPAIRS.—*Continued.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Carew street,	$80.38	$18.59	....	....	....	$14.52	$113.49
Caseland street,	....	2.59	....	....	....	....	2.59
Cass street,	....	594.21	....	....	....	....	594.21
Catharine street,	....	....	$44.95	....	....	....	44.95
Cedar street,	....	....	....	....	....	14.52	14.52
Center street,	18.02	....	....	....	....	....	18.02
Central street,	....	344.14	....	....	....	14.52	358.66
Chapel street,	12.56	....	....	....	....	....	12.56
Charles street,	....	131.80	....	....	....	....	131.80
Cherry street,	2.78	....	....	....	....	....	2.78
Cherry lane,	132.39	....	....	....	....	....	132.39
Chestnut street,	....	1,670.08	28.97	....	....	45.48	1,744.53
Chicopee road,	140.29	....	....	....	....	....	140.29
Church street,	....	35.79	....	....	....	....	35.79
Cleveland street,	13.82	....	....	....	....	....	13.82
Clyde street,	14.99	....	....	....	....	....	14.99
College street,	9.79	....	....	....	....	....	9.79
Collins street,	2.78	....	....	....	....	....	2.78
Commonwealth avenue,	3.00	....	....	....	....	....	3.00
Converse street,	4.75	....	....	....	....	....	4.75
Cooley place,	43.47	....	....	....	....	....	43.47
Cortland street,	2.78	....	....	....	....	....	2.78
Cottage street,	49.16	....	....	....	....	....	49.16
Court street,	....	....	44.28	....	....	....	44.28
Crane street,	9.04	....	....	....	....	....	9.04
Cross street,	....	....	....	....	$16.04	....	16.04
Cypress street,	....	....	38.10	....	....	....	38.10

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STREET MAINTENANCE.

REPAIRS.—*Continued.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Dartmouth street,	....	$26.56	....	....	....	....	$26.56
Dickinson street,	....	374.48	....	....	....	....	374.48
Duryea street,	$9.53	....	....	....	....	....	9.53
Dwight street,	....	.71	$382.54	....	....	$15.48	398.73
Dwight street extension,	....	1.94	....	....	....	....	1.94
East Alvord street,	38.14	....	....	....	....	....	38.14
East Court street,	....	....	33.38	....	....	....	33.38
East road,	33.96	....	....	....	....	....	33.96
Edwards street,	....	25.67	....	....	....	....	25.67
Elm street,	....	....	112.99	....	....	....	112.99
Euclid avenue,	9.47	79.66	....	....	....	....	89.13
Everett street,	....	14.52	....	....	....	....	14.52
Fairfield street,	....	2.49	....	....	....	....	2.49
Ferry street,	....	....	52.35	....	....	....	52.35
Fiberloid street,	69.78	....	....	....	....	....	69.78
Florence street,	....	41.45	....	....	....	....	41.45
Forest street,	9.53	....	....	....	....	....	9.53
Forest Park avenue,	....	57.29	....	....	....	....	57.29
Fort street,	....	30.64	....	....	....	....	30.64
Fort Pleasant avenue,	....	102.91	....	....	....	15.48	118.39
Franklin street,	....	644.12	....	....	....	....	644.12
Fulton street,	....	165.65	....	....	....	....	165.65
Genesee extension,	15.29	....	....	....	....	....	15.29
Girard avenue,	4.89	....	....	....	....	....	4.89
Goodrich street,	4.02	....	....	....	....	....	4.02
Gordon street,	7.85	....	....	....	....	....	7.85
Grand street,	33.50	....	....	....	....	....	33.50

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STREET MAINTENANCE.

REPAIRS—*Continued.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Greenwood street,	....	$13.45	....	....	....	....	$13.45
Gunn square,	$5.56	....	....	....	....	....	5.56
Hamburg street,	4.11	....	....	....	....	....	4.11
Hampden street,	....	229.09	....	....	....	$55.35	284.44
Hancock street,	5.55	....	....	....	....	14.52	20.07
Hayden street,	7.66	....	....	....	....	....	7.66
Heywood street,	....	181.10	....	....	....	....	181.10
Hickory street,	283.45	141.36	....	....	....	....	424.81
High street,	....	66.51	....	....	....	....	66.51
Holly street, I. O.,	70.77	....	....	....	....	....	70.77
Jefferson avenue,	....	....	....	....	....	14.52	14.52
Johnson street,	9.00	....	....	....	....	....	9.00
Kensington street,	12.05	....	....	....	....	....	12.05
Kenwood park,	....	1.00	....	....	....	....	1.00
King street,	5.56	....	....	....	....	....	5.56
Knox street,	40.29	....	....	....	....	....	40.29
Ladd street,	2.78	....	....	....	....	....	2.78
Ledyard street,	4.89	....	....	....	....	....	4.89
Leonard street,	12.14	....	....	....	....	....	12.14
Lester street,	6.01	....	....	....	....	....	6.01
Lexington avenue,	5.34	....	....	....	....	....	5.34
Liberty street,	242.16	69.35	$167.42	....	....	14.52	493.45
Locust street extension,	....	5.96	....	....	....	75.58	81.54
Longhill street,	9.03	....	....	....	....	....	9.03
Lyman street,	....	....	139.38	....	....	15.48	154.86
Magazine street,	....	....	960.66	....	....	....	960.66
Main street,	....	570.92	1,205.81	....	....	61.92	1,838.65

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STREET MAINTENANCE.

REPAIRS.—*Continued.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Dartmouth street,	....	$26.56	....	....	....	....	$26.56
Dickinson street,	....	374.48	....	....	....	....	374.48
Duryea street,	$9.53	....	....	....	....	....	9.53
Dwight street,	....	.71	$382.54	....	....	$15.48	398.73
Dwight street extension,	....	1.94	....	....	....	....	1.94
East Alvord street,	38.14	....	....	....	....	....	38.14
East Court street,	....	....	33.38	....	....	....	33.38
East road,	33.96	....	....	....	....	....	33.96
Edwards street,	....	25.67	....	....	....	....	25.67
Elm street,	....	....	112.99	....	....	....	112.99
Euclid avenue,	9.47	79.66	....	....	....	....	89.13
Everett street,	....	14.52	....	....	....	....	14.52
Fairfield street,	....	2.49	....	....	....	....	2.49
Ferry street,	....	....	52.35	....	....	....	52.35
Fiberloid street,	69.78	....	....	....	....	....	69.78
Florence street,	....	41.45	....	....	....	....	41.45
Forest street,	9.53	....	....	....	....	....	9.53
Forest Park avenue,	....	57.29	....	....	....	....	57.29
Fort street,	....	30.64	....	....	....	....	30.64
Fort Pleasant avenue,	....	102.91	....	....	....	15.48	118.39
Franklin street,	....	644.12	....	....	....	....	644.12
Fulton street,	....	165.65	....	....	....	....	165.65
Genesee extension,	15.29	....	....	....	....	....	15.29
Girard avenue,	4.89	....	....	....	....	....	4.89
Goodrich street,	4.02	....	....	....	....	....	4.02
Gordon street,	7.85	....	....	....	....	....	7.85
Grand street,	33.50	....	....	....	....	....	33.50

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STREET MAINTENANCE.

REPAIRS—*Continued.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Greenwood street,	....	$13.45	....	....	....	....	$13.45
Gunn square,	$5.56	....	....	....	....	....	5.56
Hamburg street,	4.11	....	....	....	....	....	4.11
Hampden street,	....	229.09	....	....	....	$55.35	284.44
Hancock street,	5.55	....	....	....	....	14.52	20.07
Hayden street,	7.66	....	....	....	....	....	7.66
Heywood street,	....	181.10	....	....	....	....	181.10
Hickory street,	283.45	141.36	....	....	....	....	424.81
High street,	....	66.51	....	....	....	....	66.51
Holly street, I. O.,	70.77	....	....	....	....	....	70.77
Jefferson avenue,	....	....	....	....	....	14.52	14.52
Johnson street,	9.00	....	....	....	....	....	9.00
Kensington street,	12.05	....	....	....	....	....	12.05
Kenwood park,	....	1.00	....	....	....	....	1.00
King street,	5.56	....	....	....	....	....	5.56
Knox street,	40.29	....	....	....	....	....	40.29
Ladd street,	2.78	....	....	....	....	....	2.78
Ledyard street,	4.89	....	....	....	....	....	4.89
Leonard street,	12.14	....	....	....	....	....	12.14
Lester street,	6.01	....	....	....	....	....	6.01
Lexington avenue,	5.34	....	....	....	....	....	5.34
Liberty street,	242.16	69.35	$167.42	....	....	14.52	493.45
Locust street extension,	....	5.96	....	....	....	75.58	81.54
Longhill street,	9.03	....	....	....	....	....	9.03
Lyman street,	....	....	139.38	....	....	15.48	154.86
Magazine street,	....	....	960.66	....	....	....	960.66
Main street,	....	570.92	1,205.81	....	....	61.92	1,838.65

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STREET MAINTENANCE.

REPAIRS.—*Continued.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Main street, I. O.,	$105.72	....	....	....	$36.90	....	$142.62
Malden street,	5.55	....	....	....	....	....	5.55
Maple street,	....	$275.91	....	....	....	....	275.91
Market street,	....	612.45	....	....	....	....	612.45
Maryland street,	6.01	....	....	....	....	....	6.01
Marion street,	4.88	....	....	....	....	....	4.88
Massasoit place,	....	1.44	....	....	....	....	1.44
McKnight street,	4.89	....	....	....	....	....	4.89
Merrick avenue,	2.78	....	....	....	....	....	2.78
Mill street,	....	133.71	....	....	....	....	133.71
Morgan street,	....	....	....	....	....	$14.52	14.52
Myrtle street, I. O.,	13.66	....	....	....	....	....	13.66
Newman street,	11.90	....	....	....	....	....	11.90
North street,	....	409.49	$1.00	....	....	14.52	425.01
Northampton avenue,	5.56	....	....	....	....	....	5.56
North end dump,	....	....	....	....	....	56.30	56.30
North Main street,	....	....	118.19	....	....	14.52	132.71
Oak street,	....	62.05	....	....	....	....	62.05
Oak street, I. O.,	343.45	....	....	....	....	....	343.45
Oakland street,	....	....	....	....	....	15.48	15.48
Old Bay road,	33.73	....	....	....	....	....	33.73
Orlando street,	3.00	....	....	....	....	....	3.00
Ozark street,	39.31	....	....	....	....	....	39.31
Parker street, I. O.,	2,498.70	....	....	....	46.20	....	2,544.90
Pasco road, I. O.,	274.28	....	....	....	49.24	....	323.52
Pasco street, I. O.,	336.82	....	....	....	....	....	336.82
Pasadena street,	6.01	....	....	....	....	....	6.01

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STREET MAINTENANCE.

REPAIRS.—*Continued.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Pease street,	$4.87	....	....	....	....	....	$4.87
Pecousic street,	....	$363.13	....	....	$20.27	$14.52	397.92
Plainfield street,	....	67.43	....	....	....	14.52	81.95
Plumtree road,	130.71	....	....	....	....	....	130.71
Prescott street,	3.00	....	....	....	....	....	3.00
Prince street,	2.78	....	....	....	....	....	2.78
Princeton street,	....	144.29	....	....	....	....	144.29
Quincy street,	....	76.00	....	....	....	....	76.00
Railroad row,	....	....	....	....	....	15.48	15.48
Ranney street,	32.90	....	....	....	....	....	32.90
Rittenhouse terrace,	10.37	....	....	....	....	....	10.37
Riverview terrace,	3.00	....	....	....	....	....	3.00
Rochelle street,	....	6.65	....	....	....	....	6.65
Roseland street,	....	11.23	....	....	....	....	11.23
Rumrill road,	518.95	....	....	....	....	....	518.95
Salem street,	....	5.61	....	....	....	....	5.61
Sanford street,	....	....	$33.15	....	....	....	33.15
Shattuck street,	5.56	....	....	....	....	....	5.56
Sherman street,	....	5.11	....	....	....	....	5.11
Sherman road,	19.63	....	....	....	....	....	19.63
Shefford street,	26.22	....	....	....	....	....	26.22
Silver street,	5.68	....	....	....	....	....	5.68
Sixteen Acre road,	819.05	....	....	....	40.31	....	859.36
Smith street,	2.80	....	....	....	....	....	2.80
Somerset street,	18.08	....	....	....	....	....	18.08
Sorrento street,	6.01	....	....	....	....	....	6.01
South End bridge,	....	....	....	....	....	14.52	14.52

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STREET MAINTENANCE.

REPAIRS.—*Continued.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Springfield street,	....	$68.95	....	....	....	....	$68.95
Spruceland avenue,	....	56.03	....	....	....	....	56.03
State street,	....	1,239.36	$60.48	....	....	$30.96	1,330.80
Stearns square,	....	10.63	....	....	....	....	10.63
St. James avenue,	$31.04	210.33	20.12	....	....	14.52	276.01
Stoney Hill road,	36.54	....	....	....	....	....	36.54
Summer street,	....	....	....	....	....	9.68	9.68
Sumner avenue,	18.85	109.12	15.39	....	....	46.44	189.80
Sumner avenue extension,	240.97	....	....	....	....	....	240.97
Sundry streets,	283.98	2,224.50	....	$925.76	$50.43	231.10	3,715.77
Sundry streets, I. O.,	255.23	7.24	....	....	24.45	....	286.92
Sylvan avenue,	3.99	....	....	....	....	....	3.99
Sylvan street,	12.03	....	....	....	....	....	12.03
Taylor street,	....	82.91	....	....	....	....	82.91
Tinkham road,	485.52	....	....	....	....	....	485.52
Toll bridge,	....	....	....	....	....	14.52	14.52
Trafton road,	17.97	....	....	....	....	....	17.97
Trinity terrace,	6.01	....	....	....	....	....	6.01
Union street,	....	247.76	....	....	....	....	247.76
Vermont street,	8.09	....	....	....	....	....	8.09
Vinton street,	....	459.03	....	....	....	....	459.03
Virginia street,	11.96	....	....	....	....	....	11.96
Wait street,	6.91	....	....	....	....	....	6.91
Walden street,	4.80	....	....	....	....	....	4.80
Walnut street,	....	....	668.94	....	....	14.52	683.46
Walnut court,	5.57	....	....	....	....	....	5.57
Washington street,	8.92	....	....	....	....	....	8.92

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STREET MAINTENANCE.

REPAIRS.—*Concluded.*

Street.	Gravel.	Surface Paving.	Paving.	Street Signs.	Fences.	Miscellaneous.	Total.
Wason avenue,	....	$39.80	....	....	....	....	$39.80
Water street,	....	1,869.64	....	....	....	$30.00	1,899.64
Webster street,	....	69.84	....	....	....	....	69.84
Welcome place,	$4.89	....	....	....	....	....	4.89
West street,	....	....	....	....	$6.32	14.52	20.84
West Alvord street,	32.86	....	....	....	....	....	32.86
Westford avenue,	5.56	....	....	....	....	....	5.56
Westminster street,	....	14.49	....	....	....	....	14.49
White street,	....	602.63	$10.95	....	....	....	613.58
Whittier avenue,	....	1.87	....	....	....	....	1.87
Wilbraham avenue,	....	153.21	....	....	....	....	153.21
Wilbraham road,	2,438.59	....	....	....	....	....	2,438.59
Willard avenue,	2.78	....	....	....	....	....	2.78
Willow street,	....	....	6.68	....	....	....	6.68
Wilmont street,	6.01	....	....	....	....	....	6.01
Wintrhop street,	....	28.86	....	....	....	....	28.86
Woodlawn street,	2.20	....	....	....	....	....	2.20
Worcester street, I. O.,	332.31	219.19	....	....	29.64	24.20	605.34
Worthington street,	....	1,278.80	134.76	....	12.26	....	1,425.82
Totals,	$15,196.91	$19,934.09	$4,618.09	$925.76	$447.65	$1,054.52	$42,177.02

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GENERAL REPAIRS.

ASSESSABLE COST.

Street.	Gravel.	Surface Paving.	Permanent Paving.	Miscellaneous.	Total Cost.
Acushnet avenue,	....	$2.55	....	....	$2.55
Alexander street,	....	10.83	....	....	10.83
Allen street,	....	9.50	....	....	9.50
Amherst street,	....	4.37	....	....	4.37
Arch street,	....	16.25	....	$14.94	31.19
Ardmore street,	$5.34	....	....	....	5.34
Armory street,	....	23.66	$7.85	29.84	61.35
Ashley street,	....	1.78	....	....	1.78
Auburn street,	....	3.03	....	....	3.03
Avon place,	....	6.37	....	....	6.37
Bancroft street,	....	2.49	....	....	2.49
Bartlett street,	....	4.58	....	....	4.58
Bay street,	....	11.85	....	....	11.85
Beechwood street,	....	23.31	....	....	23.31
Belmont avenue,	....	807.44	382.97	....	1,190.41
Benton street,	....	9.27	....	....	9.27
Berkeley street,	....	3.74	....	....	3.74
Berkshire street	9.06	....	....	....	9.06
Birnie avenue,	....	446.47	....	....	446.47
Bliss street,	....	25.15	7.63	....	32.78
Bloomfield street,	....	15.05	....	....	15.05
Bowdoin street,	....	13.30	....	....	13.30
Bradford street,	....	2.30	....	....	2.30
Bridge street,	....	2.83	....	....	2.83
Broad street,	....	3.14	....	....	3.14
Bryant street,	....	17.44	....	....	17.44
Buckingham street,	....	22.02	....	....	22.02
Byers street,	....	2.39	....	....	2.39
Calhoun street,	....	23.94	....	....	23.94
Cambridge street,	....	5.15	....	....	5.15
Carew street,	....	20.85	....	....	20.85
Catharine street,	....	....	4.45	....	4.45
Central street,	....	7.49	....	....	7.49
Charles street,	....	19.11	....	....	19.11
Cherrelyn avenue,	....	2.27	....	....	2.27
Cherryvale avenue,	....	75.84	....	....	75.84
Chester street,	....	13.04	....	....	13.04
Chestnut street,	....	180.08	3.30	....	183.38
Church street,	....	22.45	....	....	22.45
Churchill street,	....	30.27	....	....	30.27
Clarendon street,	....	5.82	....	....	5.82
Clark street,	....	3.54	....	....	3.54
College street,	....	6.90	....	....	6.90
Commonwealth avenue,	....	128.04	....	....	128.04
Cornell street,	....	1.78	....	....	1.78
Crystal avenue,	....	4.62	....	....	4.62

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GENERAL REPAIRS.

ASSESSABLE COST.—*Continued.*

Street.	Gravel.	Surface Paving.	Permanent Paving.	Miscellaneous.	Total Cost.
Cypress street,	....	$7.55	....	....	$7.55
Dartmouth street,	....	6.42	....	....	6.42
Demond street,	....	3.41	....	....	3.41
Dickinson street,	....	257.25	....	....	257.25
Dwight street,	....	142.68	$5.71	....	148.39
Eagle street,	....	2.70	....	....	2.70
East Court street,	....	....	8.93	....	8.93
East Hooker street,	....	2.49	....	....	2.49
Eastern avenue,	....	66.64	....	....	66.64
Elliot street,	....	22.87	....	....	22.87
Elm street,	....	77.15	....	....	77.15
Elmwood street,	....	1.69	....	....	1.69
Emery street,	....	26.25	....	....	26.25
Essex street,	....	2.35	....	....	2.35
Euclid avenue,	....	4.63	....	....	4.63
Everett street,	....	5.43	....	....	5.43
Fairfield street,	....	1.99	....	....	1.99
Farnsworth street,	....	27.04	....	....	27.04
Federal street,	....	43.39	....	....	43.39
Ferry street,	....	....	141.80	....	141.80
Firglade avenue,	....	12.08	....	....	12.08
Florence street,	....	32.51	....	....	32.51
Florida street,	....	13.48	....	....	13.48
Forest street,	....	42.70	....	....	42.70
Forest Park avenue,	....	118.30	....	....	118.30
Fort street,	....	22.91	....	....	22.91
Foster street,	....	4.99	....	....	4.99
Franklin street,	....	8.20	....	....	8.20
Gardner street,	....	37.37	....	....	37.37
Grant street,	....	3.25	....	....	3.25
Green street,	....	9.49	....	....	9.49
Greenwood street,	....	2.50	....	....	2.50
Grenada terrace,	....	4.51	....	....	4.51
Hall street,	....	17.50	....	....	17.50
Hampden street,	....	11.36	....	....	11.36
Hancock street,	....	51.24	....	....	51.24
Harriet street,	....	3.10	....	....	3.10
Harrison avenue,	....	....	121.23	....	121.23
Harvard street,	....	8.17	....	....	8.17
Hawthorne street,	....	1.20	....	....	1.20
Hebron street,	....	3.04	....	....	3.04
Hickory street,	....	6.56	....	....	6.56
High street,	....	39.45	....	....	39.45
Hillman street,	....	24.32	3.85	....	28.17
Hollywood street,	....	66.96	....	....	66.96
Holyoke street,	....	2.60	....	....	2.60

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GENERAL REPAIRS.

ASSESSABLE COST.

Street.	Gravel.	Surface Paving.	Permanent Paving.	Miscellaneous.	Total Cost.
Acushnet avenue,	....	$2.55	....	....	$2.55
Alexander street,	....	10.83	....	....	10.83
Allen street,	....	9.50	....	....	9.50
Amherst street,	....	4.37	....	....	4.37
Arch street,	....	16.25	....	$14.94	31.19
Ardmore street,	$5.34	....	....	....	5.34
Armory street,	....	23.66	$7.85	29.84	61.35
Ashley street,	....	1.78	....	....	1.78
Auburn street,	....	3.03	....	....	3.03
Avon place,	....	6.37	....	....	6.37
Bancroft street,	....	2.49	....	....	2.49
Bartlett street,	....	4.58	....	....	4.58
Bay street,	....	11.85	....	....	11.85
Beechwood street,	....	23.31	....	....	23.31
Belmont avenue,	....	807.44	382.97	....	1,190.41
Benton street,	....	9.27	....	....	9.27
Berkeley street,	....	3.74	....	....	3.74
Berkshire street	9.06	....	....	....	9.06
Birnie avenue,	....	446.47	....	....	446.47
Bliss street,	....	25.15	7.63	....	32.78
Bloomfield street,	....	15.05	....	....	15.05
Bowdoin street,	....	13.30	....	....	13.30
Bradford street,	....	2.30	....	....	2.30
Bridge street,	....	2.83	....	....	2.83
Broad street,	....	3.14	....	....	3.14
Bryant street,	....	17.44	....	....	17.44
Buckingham street,	....	22.02	....	....	22.02
Byers street,	....	2.39	....	....	2.39
Calhoun street,	....	23.94	....	....	23.94
Cambridge street,	....	5.15	....	....	5.15
Carew street,	....	20.85	....	....	20.85
Catharine street,	....	....	4.45	....	4.45
Central street,	....	7.49	....	....	7.49
Charles street,	....	19.11	....	....	19.11
Cherrelyn avenue,	....	2.27	....	....	2.27
Cherryvale avenue,	....	75.84	....	....	75.84
Chester street,	....	13.04	....	....	13.04
Chestnut street,	....	180.08	3.30	....	183.38
Church street,	....	22.45	....	....	22.45
Churchill street,	....	30.27	....	....	30.27
Clarendon street,	....	5.82	....	....	5.82
Clark street,	....	3.54	....	....	3.54
College street,	....	6.90	....	....	6.90
Commonwealth avenue,	....	128.04	....	....	128.04
Cornell street,	....	1.78	....	....	1.78
Crystal avenue,	....	4.62	....	....	4.62

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GENERAL REPAIRS.

ASSESSABLE COST.—*Continued.*

Street.	Gravel.	Surface Paving.	Permanent Paving.	Miscellaneous.	Total Cost.
Cypress street,	....	$7.55	....	....	$7.55
Dartmouth street,	....	6.42	....	....	6.42
Demond street,	....	3.41	....	....	3.41
Dickinson street,	....	257.25	....	....	257.25
Dwight street,	....	142.68	$5.71	....	148.39
Eagle street,	....	2.70	....	....	2.70
East Court street,	....	....	8.93	....	8.93
East Hooker street,	....	2.49	....	....	2.49
Eastern avenue,	....	66.64	....	....	66.64
Elliot street,	....	22.87	....	....	22.87
Elm street,	....	77.15	....	....	77.15
Elmwood street,	....	1.69	....	....	1.69
Emery street,	....	26.25	....	....	26.25
Essex street,	....	2.35	....	....	2.35
Euclid avenue,	....	4.63	....	....	4.63
Everett street,	....	5.43	....	....	5.43
Fairfield street,	....	1.99	....	....	1.99
Farnsworth street,	....	27.04	....	....	27.04
Federal street,	....	43.39	....	....	43.39
Ferry street,	....	....	141.80	....	141.80
Firglade avenue,	....	12.08	....	....	12.08
Florence street,	....	32.51	....	....	32.51
Florida street,	....	13.48	....	....	13.48
Forest street,	....	42.70	....	....	42.70
Forest Park avenue,	....	118.30	....	....	118.30
Fort street,	....	22.91	....	....	22.91
Foster street,	....	4.99	....	....	4.99
Franklin street,	....	8.20	....	....	8.20
Gardner street,	....	37.37	....	....	37.37
Grant street,	....	3.25	....	....	3.25
Green street,	....	9.49	....	....	9.49
Greenwood street,	....	2.50	....	....	2.50
Grenada terrace,	....	4.51	....	....	4.51
Hall street,	....	17.50	....	....	17.50
Hampden street,	....	11.36	....	....	11.36
Hancock street,	....	51.24	....	....	51.24
Harriet street,	....	3.10	....	....	3.10
Harrison avenue,	....	....	121.23	....	121.23
Harvard street,	....	8.17	....	....	8.17
Hawthorne street,	....	1.20	....	....	1.20
Hebron street,	....	3.04	....	....	3.04
Hickory street,	....	6.56	....	....	6.56
High street,	....	39.45	....	....	39.45
Hillman street,	....	24.32	3.85	....	28.17
Hollywood street,	....	66.96	....	....	66.96
Holyoke street,	....	2.60	....	....	2.60

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GENERAL REPAIRS.

ASSESSABLE COST.—*Continued.*

Street.	Gravel.	Surface Paving.	Permanent Paving.	Miscellaneous.	Total Cost.
Horace street,	....	$23.48	....	....	$23.48
Howard street,	....	21.36	....	....	21.36
Ingersoll Grove,	....	5.96	....	....	5.96
Ingraham avenue,	....	2.27	....	....	2.27
Ingraham terrace,	....	24.06	....	....	24.06
Irvington street,	....	4.09	....	....	4.09
James street,	....	3.36	....	....	3.36
John street,	....	4.06	....	....	4.06
Keith street,	....	2.66	....	....	2.66
Kenwood park,	....	10.62	....	....	10.62
King street,	....	3.54	....	....	3.54
Lafayette street,	....	3.56	....	....	3.56
Leete street,	....	59.83	....	....	59.83
Lenox street,	....	13.00	....	....	13.00
Leonard street,	....	2.34	....	....	2.34
Liberty street,	....	107.83	$18.85	....	126.68
Lillian street,	....	2.47	....	....	2.47
Locust street,	....	7.22	....	....	7.22
Locust street extension,	....	51.20	....	....	51.20
Lombard street,	....	6.83	....	....	6.83
Longhill street,	....	20.00	....	....	20.00
Lowell street,	....	5.03	....	....	5.03
Lyman street,	....	11.78	....	....	11.78
Lyndale street,	....	17.60	....	....	17.60
Magazine street,	....	....	16.30	....	16.30
Main street,	....	....	1,523.65	....	1,523.65
Maple court,	....	3.42	....	....	3.42
Maple street,	....	184.68	8.06	....	192.74
Mapledell street,	....	.82	....	....	.82
Marble street,	....	2.27	....	....	2.27
Marengo park,	....	2.65	....	....	2.65
Marion street,	....	11.19	....	....	11.19
Market street,	....	27.31	....	....	27.31
Massachusetts avenue,	....	4.11	....	....	4.11
Massasoit street,	....	8.76	....	....	8.76
Merwin street,	....	4.98	....	....	4.98
Middlesex street,	....	9.83	....	....	9.83
Mill street,	....	7.10	....	....	7.10
Monmouth street,	....	2.46	....	....	2.46
Monroe street,	....	8.67	....	....	8.67
Morgan street,	....	2.14	....	....	2.14
Mountainview street,	....	2.00	....	....	2.00
Mulberry street,	....	4.65	....	....	4.65
Myrtle street,	....	4.78	....	....	4.78
North street,	....	26.11	3.29	....	29.40

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GENERAL REPAIRS.

ASSESSABLE COST.—*Continued.*

Street.	Gravel.	Surface Paving.	Permanent Paving.	Miscellaneous.	Total Cost.
Northampton avenue,	....	$1.20	....	....	$1.20
North Main street,	....	22.83	$612.20	....	635.03
Oak street,	....	69.57	....	....	69.57
Oak Grove avenue,	....	11.44	....	....	11.44
Oakland street,	....	34.65	....	....	34.65
Olive street,	....	3.06	....	....	3.06
Orange street,	....	98.60	....	....	98.60
Orleans street,	....	8.07	....	....	8.07
Osgood street,	....	2.49	....	....	2.49
Page boulevard,	....	966.75	....	....	966.75
Palmer avenue,	....	2.23	....	....	2.23
Park street,	....	....	3.37	....	3.37
Parkwood street,	....	10.93	....	....	10.93
Patton street,	....	14.98	....	....	14.98
Pearl street,	....	18.04	....	....	18.04
Pecousic avenue,	....	38.55	....	....	38.55
Pendleton avenue,	....	....	....	$8.40	8.40
Pine street,	....	46.54	....	....	46.54
Pineywoods avenue,	....	185.74	....	....	185.74
Princeton street,	....	9.13	....	....	9.13
Prospect street,	....	32.08	....	....	32.08
Quincy street,	....	116.94	....	....	116.94
Reed street,	....	2.22	....	....	2.22
Sanford street,	....	....	8.50	....	8.50
School street,	....	7.20	....	....	7.20
Sherman street,	....	7.72	....	....	7.72
Silver street,	....	3.28	....	....	3.28
Somerset street,	$6.95	....	....	....	6.95
Spring street,	....	....	8.57	....	8.57
Springfield street,	....	6.62	....	....	6.62
Spruceland avenue,	....	84.44	....	....	84.44
State street,	....	165.55	373.27	....	538.82
Stebbins street,	....	29.42	....	....	29.42
St. James avenue,	....	212.74	....	....	212.74
St. James boulevard,	52.71	....	....	....	52.71
Stockbridge street,	....	....	14.05	....	14.05
Summer street,	....	61.19	....	....	61.19
Sumner avenue,	....	531.63	....	....	531.63
Taylor street,	....	41.62	....	....	41.62
Thompson street,	....	5.33	....	....	5.33
Tyler street,	....	165.98	....	....	165.98
Union street,	....	300.59	12.63	....	313.22
Vassar street,	....	9.29	....	....	9.29
Vernon street,	....	....	4.07	....	4.07
Walnut street,	....	5.94	17.70	....	23.64

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GENERAL REPAIRS.

ASSESSABLE COST.—*Concluded.*

Street.	Gravel.	Surface Paving.	Permanent Paving.	Miscellaneous.	Total Cost.
Walter street,	....	$3.47	....	....	$3.47
Washburn street,	....	7.26	....	....	7.26
Water street,	....	118.66	....	$98.39	217.05
Waverly street,	....	20.39	....	....	20.39
Wellesley street,	....	5.22	....	....	5.22
West Court street,	....	....	$12.09	....	12.09
Westford avenue,	....	2.30	....	....	2.30
Westminster street,	....	13.30	....	....	13.30
White street,	....	32.70	....	....	32.70
Whitney avenue,	....	3.26	....	....	3.26
Whitney place,	....	7.47	....	....	7.47
Whittier avenue,	....	3.56	....	....	3.56
Wilbraham avenue,	....	3.57	....	....	3.57
Wilbraham road,	....	27.95	....	....	27.95
Wilcox street,	....	83.62	....	....	83.62
William street,	....	2.66	....	....	2.66
Willow street,	....	....	318.75	....	318.75
Winchester street,	....	84.96	....	....	84.96
Windsor street,	....	16.19	....	....	16.19
Woodside terrace,	....	5.70	....	....	5.70
Worthington street,	....	132.36	5.82	....	138.18
Yale street,	....	7.37	....	....	7.37
York street,	....	25.55	....	....	25.55
Materials sold,	....	....	....	1,052.09	1,052.09
Rent of roller,	....	....	....	82.79	82.79
Totals,	$74.06	$7,966.20	$3,648.89	$1,286.45	$12,975.60

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SIDEWALKS AND CURBING.

CONSTRUCTION AND RECONSTRUCTION.

BY ORDERS OF THE CITY COUNCIL.

Street.	Sidewalks.		Length in feet.	Curbing. Length in feet.		Order Approved.
	Material.	Description.		4″	6″	
Abbe avenue,			.....	1,294	.....	June 1, 1916.
Arch street,			.....	402	.....	Sept., 1916.
*Armory street, Cleveland to Springfield,			.....	6,846	585	May 11, 1915.
Armory street,			.....	318	.....	Nov. 16, 1915.
Bartlett avenue,			.....	455	.....	June 1, 1916.
Bay street,	Concrete,	New,	394	.....	.....	Nov. 9, 1915.
Berkeley street,	Concrete,	New,	97	.....	.....	Nov. 9, 1915.
Bloomfield street,	Concrete,	New,	172	.....	.....	Not an order.
Bryant street,	Concrete,	New,	194	.....	.....	Nov. 24, 1914.
Burlington street,			.....	648	.....	Oct. 27, 1914.
Carew street,	Concrete,	New,	339	.....	.....	April 13, 1915.
Chapel street,			.....	688	.....	June 1, 1916.
Chapin terrace,			.....	867	.....	Oct. 19, 1915.
Cherry street,			.....	1,417	.....	Jan. 18, 1916.
Clinton street,			.....	431	.....	Sept. 12, 1916.
College street,			.....	365	.....	May 23, 1916.
Colton street,			.....	2,072	.....	Sept. 12, 1916.
Cornell street,	Concrete,	New,	549	.....	.....	Nov. 9, 1915.
Dartmouth street,	Concrete,	New,	111	.....	.....	Nov. 16, 1915.
Dickinson street,			.....	404	.....	Nov. 9, 1915.
Dwight street,	Concrete,	New,	723	.....	.....	June 23, 1915.
Florida street,			.....	277	.....	Nov. 9, 1915.
Franklin street,			.....	403	.....	July 12, 1915.

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SIDEWALKS AND CURBING.

CONSTRUCTION AND RECONSTRUCTION.

BY ORDERS OF THE CITY COUNCIL.—*Continued.*

Street.	Sidewalks.		Length in feet.	Curbing. Length in feet.		Order Approved.
	Material.	Description.		4″	6″	
Fulton street,	.....	.....	.....	.....	1,177	No order.
Genesee street,	.....	.....	.....	82	.....	Jan. 6, 1916.
Girard avenue,	.....	.....	.....	650	.....	Oct. 26, 1915.
Gordon street,	.....	.....	.....	1,067	.....	June 1, 1916.
Governor street,	.....	.....	.....	2,753	.....	Sept. 14, 1915.
Hancock street,	.....	.....	.....	76	.....	June 6, 1916.
Harvard street,	Concrete,	New,	372	.....	.....	Oct. 5, 1915.
Hillman street extension,	Concrete,	New,	115	.....	.....	June 27, 1914.
Knox street,	.....	.....	.....	258	.....	July 11, 1916.
Laurel street,	.....	.....	.....	1,012	.....	Oct. 6, 1914.
Lexington street,	.....	.....	.....	.....	763	Oct. 19, 1915.
Logan street,	.....	.....	.....	1,503	.....	Sept. 22, 1916.
Marion street,	.....	.....	.....	807	.....	Nov. 16, 1915.
Maynard street,	.....	.....	.....	385	.....	May 18, 1915.
Mooreland street,	.....	.....	.....	2,812	.....	July 11, 1916.
Narragansett street,	.....	.....	.....	.....	2,450	Oct. 19, 1915.
New street,	.....	.....	.....	.....	417	July 11, 1916.
Oakland street,	.....	.....	.....	104	.....	Oct. 17, 1916.
Orchard street,	.....	.....	.....	645	.....	July 11, 1916.
Page boulevard,	.....	.....	.....	217	.....	No order.
Pasadena street,	.....	.....	.....	104	.....	July 11, 1916.
Pecousic avenue,	.....	.....	.....	.....	1,375	Sept. 14, 1915.
Prescott street,	.....	.....	.....	666	.....	June 8, 1915.

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SIDEWALKS AND CURBING.

CONSTRUCTION AND RECONSTRUCTION.

BY ORDERS OF THE CITY COUNCIL.—*Concluded.*

Street.	Sidewalks.		Length in feet.	Curbing. Length in feet.		Order Approved.
	Material.	Description.		4″	6″	
Princeton street,	Concrete,	New,	376	.....	.....	July 10, 1913. Oct. 5, 1915.
Richelieu court,	Brick,	Relaid,	530	.....	.....	Sept. 14, 1915.
*Richelieu court,	.....	.....	.....	745	.....	Sept. 14, 1915.
Rittenhouse terrace,	.....	.....	.....	1,530	.....	May 5, 1915.
Sachem street,	.....	.....	.....	620	.....	May 18, 1915.
School street,	.....	.....	.....	.....	252	July 11, 1916.
Shefford street,	.....	.....	.....	.....	1,906	June 1, 1916.
Stafford street,	.....	.....	.....	826	.....	June 6, 1916.
Sumner terrace,	.....	.....	.....	798	.....	April 13, 1915.
Sylvan avenue,	.....	.....	.....	1,248	.....	April 27, 1915.
Thompson street,	.....	.....	.....	153	.....	Nov. 9, 1915.
*Tracy street,	.....	.....	.....	.....	788	Sept. 14, 1915.
Union street,	.....	.....	.....	90	.....	Sept. 14, 1915.
Warwick street,	.....	.....	.....	287	.....	Nov. 16, 1915.
Washington street,	.....	.....	.....	920	.....	Nov. 9, 1915.
*Water street underpass,	.....	.....	.....	.....	1,673	Dec. 24, 1912.
White street,	.....	.....	.....	1,135	.....	June 15, 1915.
*Willow street extension,	.....	.....	.....	.....	1,428	June 27, 1914.
Wilmont street,	.....	.....	.....	2,105	.....	Nov. 10, 1914.
Totals,	.....	.....	3,972	40,485	12,814	.....

* Completion of 1915 work.

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REPORT

OF THE

SEWER DIVISION

FOR THE FISCAL YEAR ENDING DECEMBER 2, 1916.

Mr. F. H. Clark, Superintendent, Department of Streets and Engineering.

DEAR SIR:—I herewith submit a description of the work done by the Sewer Division, Department of Streets and Engineering, during the year ending December 2, 1916.

GENERAL DESCRIPTIONS.

The total expenditures for new sewer construction and reconstruction during the year amounted to $33,909.57. Deducting cost of sewers abandoned, amounting to $281.09, leaves $33,628.48 to be added to the value of the sewer system as of December 2, 1916.

The total value of our system on December 2, 1916, was accordingly $1,784,865.79 and embraced a total of 147.1 miles of sewers in the care of this department.

The amount expended in repairs to the system was $3,667.53; in cleaning, $4,637.94, and in flushing the same, $3,908.03. As usual all sewer construction during the year has been done directly by this division.

The receipts from entrances, exclusive of the fees on account of building private drains, amounted to $28,527.77, and the number of connections made to buildings during the year was 590.

The length of pipe sewers laid during the year was 19,599 feet.

Compared with recent years the amount of new work accomplished by the Sewer Division is small. This is due to the unusual labor conditions prevailing during the season. Owing to the nature of the work, the Sewer Division was the first to feel the effects of the labor shortage and the laborers, being in a position to pick their jobs, drifted to work less laborious and more remunerative. At no time during the season have we been able to muster for our construction gangs over fifty per cent of

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the men necessary to handle the work in the most efficient and economical manner. Consequently considerable work planned for the season was not undertaken and only sewers for which there was urgent need have been built.

However, we have been able to take care of a record demand for connections to buildings 590 being built during the year, the largest number in the history of the department. We have also done the usual amount of maintenance work. Repairs, cleaning, and flushing have been carried on as demand required to keep the system up to the usual standard.

We have fortunately had much less than the usual amount of trouble with the old cement pipe sewers during the past year. This is undoubtedly due to the policy pursued for several years back of replacing them with modern materials as fast as weakness developed, and while we have about twenty-one miles still in service, some of which need constant watching, it is believed from now on less trouble will be experienced.

It gives me pleasure to acknowledge the hearty co-operation of the engineers and foremen of this division, and to thank you for the support and courtesies at all times received from you.

Respectfully submitted,

HOWARD O. BUCK,
Deputy Superintendent of Sewers.

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SEWER CONSTRUCTION AND RECONSTRUCTION.

DESCRIPTION AND COSTS—FISCAL YEAR, 1916.

Location.	Material.	Length in feet.	Size.	Total Cost.	Unit Cost.
Albemarle street, Gunn brook to King street,	Clay	259	10″	$268.14	$1.03
Ardmore street, Page boulevard to Bowles park,	Clay	1,486	10″	1,636.18	1.10
Belle avenue, Chestnut street to Cass street, completion,	Clay	131 145	24″ 10″	756.18	2.73
Belvidere avenue, extension southerly to Fountain place,	Clay	161	18″	448.43	2.78
Bowles park, Ardmore street to Osborne terrace, incomplete,	Clay	167	10″	97.15	.582
Burton street, White to Kimberly avenue,	Clay	527 180	12″ 10″	690.97	.977
Center street, I. O., extension easterly,	Clay	69	10″	63.99	.927
Chestnut street, Franklin to Belle avenue, completion,	Clay			103.30	
Chestnut street, Ferry street northerly,	Clay	150	12″	767.51	5.11
Chestnut street, Noble to Jenks,	Clay	341	12″	653.42	1.91
College street, Shattuck avenue southerly, relaying,	Clay	280	12″	370.89	1.32
Dunmoreland street, Westford circle to King street,	Clay	546	10″	510.37	.935
Dunmoreland street, Westford circle northerly,	Clay	584	10″	681.23	1.17
Eastern avenue, Wilbraham road southerly,	Clay	296	12″	1,193.62	4.02
Edendale street, Page boulevard to Bowles park,	Clay	1,471	10″	1,299.39	.883
Eleanor road, extension westerly,	Clay	175	12″	182.90	1.04
Fountain place, Belmont avenue southerly,	Clay	299	12″	310.25	1.04
Genesee street, Armory to Liberty street,	Clay	350 351	12″ 10″	645.23	.921
Healey avenue, I. O., extension, Clermont street to South, incomplete,	Clay	380	15″	819.62	2.16
Herman street, Sumner avenue to Vermont street,	Clay	257 286	12″ 10″	603.88	1.11
Itendale street, Belmont avenue to Washington street,	Clay	277 455	20″ 18″	1,520.83	2.08
Jenks street, North Main to Chestnut street,	Clay	404	12″	699.05	1.72

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SEWER CONSTRUCTION AND RECONSTRUCTION.—*Continued.*

Location.	Material.	Length in feet.	Size.	Total Cost.	Unit Cost.
Leonard street, Franklin street northerly,	Clay	367	12″	$644.74	$1.75
Leslie terrace, Liberty street northerly,	Clay	151	12″	236.20	1.56
Longhill street, extension to Warner street and relaying southerly of Warner street,	Clay	260	10″	613.50	2.36
Main street, extension northerly at railroad arch,	Clay	51	12″	194.43	3.78
Massachusetts avenue, extension southerly to King street,	Clay	302	10″	379.92	1.25
Newland street, extension westerly,	Clay	304	12″	282.76	.931
Oak Grove park, Center street westerly,	Clay	144	10″	139.59	.966
Osborne terrace, Page boulevard to Bowles park,	Clay	1,414	10″	1,373.46	.971
Page boulevard, extension easterly to Edendale street,	Clay	118	20″	344.41	2.93
Parker street, I. O., extension southerly,	Clay	40	24″	198.87	4.97
Phoenix terrace, Kendall avenue to Freeman terrace,	Clay	300 250 251	15″ 12″ 10″	1,102.75	1.38
Pineywoods avenue, at curve between Washington boulevard and Florentine Gardens,	Clay	105	15″	476.01	4.55
Quebec street, I. O., extension easterly,	Clay	255 242	15″ 12″	923.89	1.86
Saratoga street, Niagara to Main street,	Clay	172	12″	268.01	1.56
Sheffield street, Shillingford street northerly,	Clay	209	10″	234.97	1.12
Shefford street, extension easterly to Springfield street,	Clay	200 225	12″ 10″	763.07	1.73
Shefford street, Springfield street sewer easterly, incomplete,	Con.	210	3′2″x4′9″ Elliptical	2,837.57	
Summit street, extension to Federal street,	Clay	263	10″	517.22	1.96
Sunapee street, extension northerly to Blaine street,	Clay	297 337	12″ 10″	591.40	.933
Taft avenue, Sylvan avenue to Woodlawn street,	Clay	247	10″	201.65	.827

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SEWER CONSTRUCTION AND RECONSTRUCTION.—*Concluded.*

Location.	Material.	Length in feet.	Size.	Total Cost.	Unit Cost.
Thorndyke street, extension southerly,	Clay	398	10″	$552.48	$1.38
Van Horn place, Carew street northerly,	Clay	162	10″	227.68	1.405
Vernon street, westerly of Main, relaying and extension,	Clay	50	12″	328.78	6.58
Washington street, Dickinson street to Commonwealth avenue,	Clay	306 215	12″ 10″	531.14	1.02
Washington street, Itendale street to Woodlawn street,	Clay	259 208	12″ 10″	363.85	.779
West street, Connecticut river to Plainfield street, storm-water,	Clay	635 511	15″ 12″	1,788.51	1.56
Wigwam place, Dickinson street easterly,	Clay	324	10″	427.63	1.32
Total sewer construction, 1916,		19,809		$30,867.02	

The costs of the above described sewers include the costs of manholes, wellholes, and flush gates.

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CONSTRUCTION—MANHOLES.

LOCATION.	Total Cost.	Unit Cost.
Churchill street,	$67.10	$67.10
College street,	70.41	70.41
Florentine Gardens,	59.06	59.06
Forest street (two),	154.45	77.23
Fulton street (two),	97.72	48.86
Garfield street,	49.70	49.70
Howard street,	47.28	47.28
New street,	45.86	45.86
Salem street,	43.94	43.94
Stafford street,	42.53	42.53
Worthington street,	100.16	100.16
Total,	$778.21	....

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CONSTRUCTION—WELLHOLES.

Location.	Total Cost.	Unit Cost.
Alden street (fourteen),	$298.96	$21.35
Allen street,	12.56	12.56
Arch street,	17.47	17.47
Armory street,	21.94	21.94
Bartlett avenue,	28.32	28.32
Bond street,	24.47	24.47
Chapel street,	20.41	20.41
Chapin terrace (two),	39.07	19.54
Chestnut street (two),	72.35	36.17
College avenue (four),	82.58	20.65
Colonial avenue (two),	43.57	21.79
Colton street (two),	33.01	16.51
Cortland street (two),	51.17	25.59
Cypress street (two),	28.56	14.28
Lebanon street,	26.50	26.50
Liberty street (two),	26.88	13.44
Logan street (three),	72.59	24.20
Mooreland avenue (two),	41.46	20.73
New street (two),	48.87	24.44
Oak street, I. O.,	51.37	51.37
Oakland street,	31.23	31.23
Orchard street (two),	45.60	22.80
Page boulevard (five),	108.53	21.71
Richelieu court (eight),	77.17	9.65
Salem street,	7.92	7.92
School street,	29.47	29.47
Shefford street (four),	54.69	13.68
Shillingford street,	17.29	17.29
Stafford street (four),	61.37	15.34
Water street (two),	53.70	26.85
West street (two),	40.04	20.02
White street (twenty),	434.69	21.73
Total,	$2,003.81	....

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CONSTRUCTION—FLUSH GATES.

LOCATION.	Total Cost.	Unit Cost.
Abbe avenue (two),	$64.55	$41.48 23.07
Brunswick street,	22.21	22.21
Duryea street,	20.55	20.55
Hastings street,	24.40	24.40
Hughes avenue,	23.89	23.89
Oak Grove park,	18.40	18.40
Rochelle street,	20.40	20.40
Salem street,	22.78	22.78
Stevens street,	21.31	21.31
Woodside terrace,	22.04	22.04
Total,	$260.53	....

Digitized by Google

CONSTRUCTION—WELLHOLES.

LOCATION.	Total Cost.	Unit Cost.
Alden street (fourteen),	$298.96	$21.35
Allen street,	12.56	12.56
Arch street,	17.47	17.47
Armory street,	21.94	21.94
Bartlett avenue,	28.32	28.32
Bond street,	24.47	24.47
Chapel street,	20.41	20.41
Chapin terrace (two),	39.07	19.54
Chestnut street (two),	72.35	36.17
College avenue (four),	82.58	20.65
Colonial avenue (two),	43.57	21.79
Colton street (two),	33.01	16.51
Cortland street (two),	51.17	25.59
Cypress street (two),	28.56	14.28
Lebanon street,	26.50	26.50
Liberty street (two),	26.88	13.44
Logan street (three),	72.59	24.20
Mooreland avenue (two),	41.46	20.73
New street (two),	48.87	24.44
Oak street, I. O.,	51.37	51.37
Oakland street,	31.23	31.23
Orchard street (two),	45.60	22.80
Page boulevard (five),	108.53	21.71
Richelieu court (eight),	77.17	9.65
Salem street,	7.92	7.92
School street,	29.47	29.47
Shefford street (four),	54.69	13.68
Shillingford street,	17.29	17.29
Stafford street (four),	61.37	15.34
Water street (two),	53.70	26.85
West street (two),	40.04	20.02
White street (twenty),	434.69	21.73
Total,	$2,003.81	....

Digitized by Google

CONSTRUCTION—FLUSH GATES.

LOCATION.	Total Cost.	Unit Cost.
Abbe avenue (two),	$64.55	$41.48 23.07
Brunswick street,	22.21	22.21
Duryea street,	20.55	20.55
Hastings street,	24.40	24.40
Hughes avenue,	23.89	23.89
Oak Grove park,	18.40	18.40
Rochelle street,	20.40	20.40
Salem street,	22.78	22.78
Stevens street,	21.31	21.31
Woodside terrace,	22.04	22.04
Total,	$260.53	....

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SEWER CONSTRUCTION CLASSIFIED.

VITRIFIED CLAY PIPE.

Sizes.	Length in Feet.		Total Length.
	New Construction.	Reconstruction.	
10″	10,503	...	10,503′
12″	5,909	330	6,239′
15″	1,675	...	1,675′
18″	616	...	616′
20″	395	...	395′
24″	171	...	171′
Total,	19,269	330	19,599′

CONCRETE.

Sizes.	Length in Feet.		Total Length.
	Construction.	Reconstruction.	
3′2″x4′9″	210	...	210′
Total,	210	...	210′

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ABANDONED SEWERS—1916.

Location.	Material.	Length in Feet.	Sizes.	Cost.
Chestnut street—Franklin street southerly,	Cem.	12	12″	$9.30
College street—State street to Shattuck avenue,	Clay	280	12″	69.16
Eastern avenue—Monroe street northerly,	Clay	5	8″	5.68
Longhill street—Warner street to Sumner avenue,	Clay	146	10″	131.40
Vernon street—Water street easterly,	Cem.	50	15″	65.55
Totals,		493		$281.09
To correct sewer table: Main street—York street to B. & A. railroad,	Clay	50	12″	
Totals,		543		$281.09

SUMMARY.

Description.	Length in Feet.	Cost.
Clay pipe sewers, built by regular appropriation,	19,599	$28,029.45
Concrete sewers, built by regular appropriation,	210	2,837.57
Flush gates, manholes, and wellholes built by regular appropriation and added to cost of sewer system,		3,042.55
	19,809	$33,909.57
Sewers abandoned,	543	281.09
Totals to be added to sewer system,	19,266	$33,628.48

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SEWER CLEANING AND REPAIRS.

	COST OF	
	Cleaning.	Repairs.
Abbe avenue,	....	$53.90
Acorn street,	....	12.08
Albemarle street,	....	1.86
Alden street,	....	62.25
Alfred street,	....	9.62
Allen street,	$96.47	....
Amherst street,	....	6.64
Applewood street,	....	7.74
Arch street,	....	1.16
Armory street,	....	102.67
Ashmun street,	....	10.12
Avon place,	....	22.65
Bay street,	83.90	62.42
Belmont avenue,	50.18	1.10
Belvidere avenue,	....	24.25
Benton street,	59.19	....
Berkshire street, I. O.,	....	5.53
Birnie avenue,	....	118.78
Bliss street,	20.48	....
Bloomfield street,	....	5.28
Bowles street,	....	22.29
Bradford street,	....	7.18
Bridge street,	....	21.77
Buckingham street,	....	9.98
Burton street,	....	1.49
Butler street,	....	73.10
Calhoun street,	....	14.89
Carew street,	....	7.32
Cass street,	....	79.71
Catharine street,	49.09	5.10
Cedar street,	....	1.01
Central street,	....	4.55
Chapel street,	....	5.63
Cherrelyn avenue,	38.26	10.15
Chestnut street,	....	128.04
Church street,	....	9.35
Clantoy street,	....	25.87
Clark street,	....	30.43
Clifford street,	15.14	2.15
Clinton street,	....	32.83
College street,	85.62	69.20
Colton street,	....	31.95
Congress street,	....	8.59
Continental avenue,	8.63	....
Cornell street,	21.79	....
Cortland street,	....	36.40
Crystal avenue,	....	25.11

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SEWER CLEANING AND REPAIRS.—*Continued.*

	COST OF	
	Cleaning.	Repairs.
Dartmouth terrace,	....	$8.62
Davis court,	....	3.46
Dawes street,	$42.30	....
Dickinson street,	79.84	11.32
Dunmoreland street,	....	2.71
Dwight street,	....	49.52
Eastern avenue,	....	15.60
Elliot street,	....	7.63
Elmwood street,	....	7.42
Essex street,	....	3.18
Essex street, I. O.,	....	8.32
Euclid avenue,	20.72	2.10
Everett street,	....	55.68
Florence street,	45.27	....
Forest street,	41.55	....
Forest Park avenue,	60.11	....
Fort Pleasant avenue,	....	7.09
Firglade avenue,	....	6.50
Fisk avenue,	....	33.42
Franklin street,	....	51.35
Fremont street,	....	46.56
Fulton street,	....	47.02
Garden Brook,	1,379.70	....
Gardner street,	....	6.71
George street,	14.02	....
Girard avenue,	28.72	23.23
Greenleaf street,	14.01	....
Greenwood street,	....	34.06
Grove street,	....	9.14
Groveland street,	....	2.15
Hall street,	43.66	62.42
Hampden street,	....	3.43
Hancock street,	....	19.28
Harrison avenue,	....	9.55
Harvard street,	35.49	7.41
Hickory street,	....	6.40
Hillman street,	....	2.15
Hollywood street,	....	10.00
Home street,	....	2.15
Horace street,	....	4.98
Howard street,	167.92	50.81
Ingersoll Grove,	....	3.38
Inlets,	17.04	....
Irvington street,	....	7.63
James street,	....	4.57
John street,	....	15.16
Keith street,	31.29	30.07

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SEWER CLEANING AND REPAIRS.—*Continued.*

	COST OF	
	Cleaning.	Repairs.
Kimberly avenue,	....	$4.30
Lebanon street,	....	20.92
Leete street,	....	5.20
Lexington avenue,	....	2.15
Liberty street,	....	78.62
Linden street,	....	65.83
Logan street,	....	28.83
Lombard street,	....	1.28
Longhill street,	....	—.62
Loring street,	....	11 11
Lyman street,	$77.86	....
Magazine street,	....	35.79
Magnolia terrace,	35.44	18.88
Main street,	517.91	8.77
Main street, I. O.,	....	17.55
Malden street,	....	14.88
Mansfield street,	....	6.71
Maple street,	33.86	15.13
Maplewood terrace,	32.83	....
Marble street,	....	10.39
Marengo Park,	53.43	....
Margaret street,	....	30.97
Market street,	7.33	12.30
Massasoit street,	....	2.01
Mattoon street,	....	16.63
McKnight street,	....	9.77
Merrick avenue,	....	36.19
Montrose street,	9.94	....
Mooreland street,	....	15.67
Mulberry street,	....	.75
Murray Hill avenue,	....	1.81
Narragansett street,	....	22.07
New street,	....	11.19
North street,	....	15.43
North Main street,	....	2.15
Norwood street,	....	5.46
Oak street,	....	9.80
Oak street, I. O.,	....	7.38
Oakland street,	....	21.70
Olive street,	34.42	25.83
Orange street,	....	3.67
Orchard street,	....	6.67
Orleans street,	22.95	....
Outlets,	123.94	....
Ozark street,	8.13	31.32
Pasadena street,	....	6.34
Pasco street, I. O.,	....	2.36

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SEWER CLEANING AND REPAIRS.—*Continued.*

	COST OF	
	Cleaning.	Repairs.
Parker street, I. O.,	$6.10	$1.00
Patton street,	....	24.47
Peabody lane,	....	3.89
Pendleton avenue,	62.91	....
Pineywoods avenue,	51.05	2.77
Plainfield street,	....	37.77
Portland street,	....	4.86
Prince street,	....	57.90
Princeton street,	82.07	....
Quincy street,	....	14.56
Revere street,	....	20.32
Richelieu court,	....	8.73
Rochelle street,	....	5.45
Rowland avenue,	19.69	8.37
Sachem street,	....	10.65
Sackett avenue,	....	6.10
School street,	....	12.86
Sharon street,	....	75.75
Shefford street,	....	20.65
Sherman street,	....	6.30
Smith street,	....	2.15
Spencer street,	....	5.75
Spruce street,	....	1.77
Spruceland avenue,	....	6.75
Stafford street,	....	5.95
State street,	406.69	36.54
St. James avenue,	....	47.95
Summer street,	....	14.33
Sumner avenue,	....	11.82
Sumner terrace,	....	10.89
Sundry streets,	25.60	....
Talcott avenue,	....	72.21
Tenth street,	....	19.84
Terrence street,	....	7.55
Thomas street,	....	14.30
Thompson street,	30.74	....
Trenton street,	....	7.41
Tyler street,	....	11.64
Union street,	45.88	100.35
Vassar street,	12.01	....
Vinton street,	....	44.39
Walden street,	....	1.11
Walker street,	....	4.19
Walnut street,	....	13.79
Washington road,	30.31	....
Wason avenue,	....	21.91
Water street,	....	34.51

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SEWER CLEANING AND REPAIRS.—*Concluded.*

	COST OF	
	Cleaning.	Repairs.
White street,	$200.89	$64.62
Wight place,	....	5.70
Wilbraham road,	79.22	40.68
Wilcox street,	....	2.54
Willard avenue,	....	84.22
William street,	24.80	84.30
Willow street,	51.55	.97
Windsor street,	....	2.15
Woodside terrace,	....	2.66
Worcester street,	....	3.18
Worthington street,	....	22.17
"X" court,	....	6.41
Yale street,	....	30.92
Totals,	$4,637.94	$3,667.53

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CITY OF SPRINGFIELD,

SEWER SYSTEM TABULATED TO DECEMBER 1, 1916.

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Abbe ave., Fisk ave., westerly	301	15″	Clay	$520.45	
	275	12″	Clay		
	300	18″	Clay		
Plainfield st., westerly	300	15″	Clay	1,446.64	
	301	12″	Clay		
	200	10″	Clay		
					$1,967.09
***Acorn st.**, Sycamore to Edgewood st	276	10″	Clay		176.64
Acushnet ave., Main st., easterly	294	20″	Clay		
	279	18″	Clay		298.94
	271	15″	Clay		
	26	12″	Clay		
Adams st., Main to Ashmun st	294	20″	Clay		
	245	18″	Clay		
	323	15″	Clay	3,322.93	
	221	12″	Clay		
Richelieu st., westerly	237	12″	Clay	304.12	
					3,627.05
Albany st., Armory st., easterly	1,083	5′-0″ cir.	Con.		19,645.30
	478	4′-3″ cir.	Con.		
	445	3′-9″ cir.	Con.		
Albemarle st., Wilbraham road, southerly	300	15″	Clay		
	314	12″	Clay	1,098.28	
	421	10″	Clay		
*Westford circle, northerly	564	10″	Clay	499.51	
*Gunn Square brook to Westford circle	329	12″	Clay	333.56	
*Gunn Square brook to King st	259	10″	Clay	268.14	
					2,199.49
Alden st., Hancock st. to Eastern ave	595	18″	Cem.	1,861.38	
	820	15″	Cem.		
Eastern ave. to Wilbraham ave	895	15″	Clay	995.10	
Wilbraham ave. to Hickory st	499	10″	Clay	250.86	
					3,107.34
Alderman st., Dickinson to Scott st	296	18″	Clay		
	304	15″	Clay		1,269.59
	300	12″	Clay		
	443	10″	Clay		
Alexander st., North st., easterly	288	10″	Clay		188.48

*Sanitary sewers.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Alfred st., Birnie ave., easterly	377	10″	Clay		....
Allen ave., Allen st., easterly	338	10″	Clay		$232.73
Allen st., Mill river to Oakland st.	216	24″	Clay	$576.86	
Mill to Oakland st.	365	10″	Clay	447.19	
Oakland st. to Plumtree road	686	24″	Clay	1,832.06	
	383	18″	Clay		
	474	15″	Clay	1,714.47	
	580	12″	Clay		
	1,603	12″	Clay	950.46	
	1,401	10″	Clay	984.62	
					6,505.66
Allendale st., North st., easterly	272	12″	Clay		
	340	10″	Clay		401.43
Amaron st., State st., southerly	349	10″	Clay		238.78
Amherst st., Harvard st., northerly	441	12″	Cem.	146.99	
	25	10″	Clay	23.78	
Princeton to Monmouth st	512	12″	Clay	622.90	
	191	10″	Clay		
					793.67
Andrew st., State st., northerly	463	20″	Clay		
	422	18″	Clay		1,858.75
	382	12″	Clay		
Applewood place, Belmont ave., northerly	469	10″	Clay		391.81
Arbor st., Butler to Carew st.	398	12″	Clay		318.05
Arch st. (see Garden brook)					
***Ardmore st.**, Page boulevard to Bowles park	1,486	10″	Clay		1,636.18
Armory hill sewer (see private ways).					
Armory st., Worthington st., southerly	570	15″	Cem.	754.98	
Summer st., southerly	374	12″	Clay	384.78	
	325	10″	Clay	193.87	
B.& A.R.R. to Liberty st.	690	15″	Clay		
	360	12″	Clay	1,187.41	
	271	10″	Clay		
Liberty to Sullivan st.	450	1′-10″x2′-9″	Brick	2,439.42	
	476	1′- 8″x2′-6″	Brick		
Sullivan to Carew st.	156	24″	Clay		
	267	20″	Clay	1,006.45	
	290	12″	Clay		

* Sanitary sewers.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Carew st., northerly.....	452	20″	Clay	$1,255.27	
	803	10″	Clay		
Springfield st., southerly..	31	20″	Clay	358.92	
	146	18″	Clay		$7,581.10
Ashley st., Cedar st., easterly.....	65	18″	Cem.	80.45	
	580	15″	Cem.	1,555.00	
	697	12″	Cem.		1,635.45
Ashmont st., Belmont ave., northeasterly.....	250	12″	Clay		351.57
	200	10″	Clay		
Ashmun st., Adams st., southerly.....	176	10″	Clay		350.48
Atwater terrace, Springfield st., northerly.....	1,020	18″	Clay		1,469.45
Atwater road, Greene lane, westerly.....	322	20″	Clay		....
	199	18″	Clay		
Auburn st., Fulton st., easterly.....	397	12″	Clay		655.06
	335	10″	Clay		
Austin st., State st., northerly.....	363	10″	Clay		334.91
Autumn st., Summer to Worthington st.....	239	15″	Clay		715.29
Avon place, Maple st., easterly.....	695	24″	Clay		3,359.45
Banbury st., Stockman st., southerly.....	234	10″	Clay		188.81
Bancroft st., Garden brook to Chestnut st.....	1,361	3′-4″x5′-0″	Brick		
including Chestnut st., Bancroft to Montmorenci st.....	379	3′-2″x4′-9″	Brick		8,914.04
Montmorenci st., Chestnut st., easterly.....	43	3′-2″x4′-9″	Brick		
Bartlett st., Massasoit place, northerly.....	235	10″	Clay		292.71
Bay st., St. James ave. to Pleasant st.....	250	15″	Clay		
	245	12″	Clay	715.01	
	228	10″	Clay		
Florida to Pleasant st....	235	12″	Clay	321.02	
Florida to Sherman st....	304	20″	Clay	1,092.89	
	377	18″	Clay		
	812	15″	Clay	945.16	
Sherman to Clarendon st.	151	8″	Cem.	46.82	
Catharine to Clarendon st.	194	10″	Clay	200.66	
Bowles to Cambridge st.	1,037	2′-8″x4′-0″	Brick	8,290.44	
	360	2′-2″x3′-3″	Brick		
Cambridge to Sycamore st.	332	24″	Clay	1,348.03	
	360	20″	Clay		12,960.03

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SEWER SYSTEM.—*Continued*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Beacon st., Eastern ave. to Colton st.	250	10″	Clay	$152.81	
Colton st., easterly	106	8″	Clay	75.08	
					$227.89
Beaudry st., I. O., Main st., southerly	300	12″	Clay		
	270	10″	Clay		745.95
Beaumont st., Belmont ave., northerly	250	12″	Clay		
	431	10″	Clay	403.87	
Belmont ave. to Sumner ave.	264	10″	Clay	183.91	
					587.78
Beaumont terrace, Beaumont st., easterly	271	10″	Clay		298.12
Beech st., Central st., northerly	427	10″	Cem.		124.37
Beechwood ave., Sumner to Spruceland ave.	595	12″	Clay		19.09
Belgrade place, Walnut st., westerly	220	8″	Clay		
	140	6″	Clay		33.88
Belle ave., Chestnut st., easterly to Cass st.	544	24″	Clay		
	300	15″	Clay		
	280	12″	Clay		2,918.34
	250	10″	Clay		
Bellevue ave., Belmont ave., easterly	300	18″	Clay		
	300	15″	Clay		
	194	12″	Clay	....	
Dickinson st., westerly	744	10″	Clay	....	
					....
Belmont ave., Fort Pleasant ave., easterly	90	10″	Clay	93.92	
Mill river to Woodside ter.	954	20″	Clay	2,713.44	
Woodside ter. to Litchfield	660	2′- 0″x3′-0″	Brick		
	445	1′-10″x2′-9″	Brick		
	595	1′- 8″x2′-6″	Brick	11,978.81	
	550	1′- 6″x2′-3″	Brick		
Litchfield st. to Kenwood Park	432	20″	Clay		
	493	18″	Clay	1,682.59	
Kenwood Park to Sumner ave.	301	15″	Clay		
	403	12″	Clay		
	616	10″	Clay	901.28	
*Sumner ave. to Woodlawn st.	830	3′- 4″x5′-0″	Brick		
	819	3′- 0″x4′-6″	Brick	8,216.97	
	245	3′- 0″x4′-6″	Br.C.		
	416	2′-10″x4′-3″	Br.C.	3,470.41	
*Woodlawn to White st.	1,637	2′-10″x4′-3″	Con.	7,237.33	
					36,294.75

*Elliptical.

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SEWER SYSTEM.—*Continued*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Belmont place, Belmont ave., southerly	216	10″	Clay		$192.92
Belvidere avenue, Belmont ave. to Fountain place.	300	20″	Clay		1,288.20
	362	18″	Clay		
Benton ave., Benton st., easterly	300	10″	Clay		360.43
	325	8″	Clay		
Benton st., State st., southerly	301	12″	Clay		
	300	10″	Clay	$513.96	
	247	8″	Clay		
	320	8″	Clay	419.68	
					933.64
Berendo st., Grenada terrace to Alderman st.	345	12″	Clay		327.55
Berkeley st., Princeton to Monmouth st.	483	12″	Clay		582.51
Berkshire st., I. O.					
Oak to Myrtle st.	701	12″	Cem.	946.21	
Oak st., easterly	387	12″	Clay	389.89	
Chestnut to Myrtle st.	577	12″	Clay	545.74	
Chestnut st., westerly	278	12″	Clay	339.42	
					2,221.26
Besse place, Main st., westerly	290	10″	Clay		....
Bethel st., Brunswick st., easterly	300	10″	Clay		228.90
Biltmore st., Dickinson st. to Trafton road	350	15″	Clay		866.51
	349	12″	Clay		
	351	10″	Clay		
Birnie ave., Wason ave., northerly and easterly to North Main st.	896	24″	Clay	1,534.02	
	174	15″	Clay		
Wason ave., southerly	350	18″	Clay	1,024.75	
	417	15″	Clay		
Worcester st. extension, northerly to Grace st.	162	15″	Cem.	....	
Worcester st. extension, southerly to Walter st.	144	12″	Cem.	....	
Douglas st., northerly	292	24″	Clay		
	303	20″	Clay	1,149.93	
	304	15″	Clay		
	144	10″	Clay		
Douglas st. to near Hooker st.	373	1′-10″x2′-9″	Brick	1,319.73	
	312	20″	Clay	768.74	
	316	18″	Clay		
	168	15″	Clay	158.56	
Arch to Hooker st.	1,048	24″	Clay	37.11	
					5,992.84

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Birnie ave. extension, Arch st., southerly	445	10″	Clay		....
Blaine st., White to Brunswick st.	373	24″	Clay		$850.08
Blake hill, Fort Pleasant ave., easterly	244	10″	Clay		236.22
Bliss st., from Main to N. Y., N. H. & H. R. R.	1,284	12″	Cem.		1,285.90
Bloomfield st., Oakland to Earl st.	500	18″	Clay	$1,692.55	
	527	15″	Clay		
Earl st. to Pasadena ave.	550	12″	Clay	917.72	
	273	10″	Clay		
					2,610.27
Bond place, including 41 feet in Bridge st. (for cost see Symonds ave.).	203	12″	Cem.		....
Bond st., Garden brook	341	2′-0″x3′-0″	Brick	1,580.25	
sewer to Chestnut st.	959	24″	Clay	2,285.89	
					3,866.14
Bowdoin st., Worthington	660	15″	Cem.	762.11	
st., southerly	285	12″	Clay	371.52	
Worthington to Ingersoll grove	819	12″	Cem.	758.64	
					1,892.27
Bowles st., Bay to McKnight	695	15″	Cem.	1,083.39	
	64	15″	Clay	136.50	
Pease st., northerly	275	8″	Clay	62.76	
					1,282.65
***Bowles park,** Ardmore st., easterly	167	10″	Clay		97.15
Boylston st., Cypress to	610	18″	Cem.		1,656.24
Clinton	346	15″	Cem.		
Bradford st., North Main	352	15″	Cem.		1,301.99
to Fulton st.	758	12″	Cem.		
Bridge st., Main st. to	798	12″	Cem.	762.38	
Conn. river	275	15″	Clay	429.14	
Main to Chestnut st.	1,158	2′-0″x3′-0″	Brick	5,414.20	
					6,605.72
Brightwood ave., Plainfield st., westerly	221	15″	Clay		237.94
Bristol st., Wilbraham road	299	15″	Clay	599.47	
to Marlborough st.	560	12″	Clay		
Marlborough st., southerly	552	10″	Clay	293.99	
					893.46
Broad st., Hanover to Main st.	970	15″	Cem.		1,401.19

* Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Brookline ave., North st., easterly	328	12″	Clay		$29.57
	171	10″	Clay		
Brooklyn ave., Sumner ave., southerly	423	12″	Clay		329.56
Brown st., Yale to Bay st.	483	10″	Cem.		357.65
	21	8″	Cem.		
Brunswick st., Brooklyn ave., southerly	307	10″	Clay	$190.48	
Blaine to Bethel st	251	18″	Clay		
	252	15″	Clay	1,031.89	
	252	12″	Clay		
Bethel st., northerly	225	10″	Clay	237.07	
					1,459.44
Bryant st., Belmont to Sumner ave	274	15″	Clay		
	301	12″	Clay		763.96
	300	10″	Clay		
Buckingham place, Bay st., westerly	235	10″	Clay		168.97
Buckingham st., Bay to Clarendon st	651	12″	Clay		
Bay st., southerly	35	12″	Cem.	597.24	
State to Bay st	305	18″	Clay		
	345	15″	Clay	1,158.40	
	675	12″	Clay		
					1,755.64
Burlington st., Belmont ave., northerly	137	10″	Clay		....
Burr st., Andrew st., easterly	570	12″	Clay		499.91
Burton st., White st. to Kimberly ave	527	12″	Clay		690.97
	180	10″	Clay		
Butler st., Chestnut to Cass st	1,268	20″	Clay	2,119.54	
Cass st., easterly	321	20″	Clay	520.71	
					2,640.25
Calhoun st., North Main to North st	853	12″	Clay	701.77	
North st., easterly	300	8″	Clay	262.38	
					964.15
Cambridge st., Bay st., southerly	276	20″	Clay		
	331	18″	Clay	1,204.43	
	266	15″	Clay		
	302	12″	Clay		
	278	10″	Clay	411.63	
Burr st., northerly	162	10″	Clay	142.44	
					1,758.50
Card-factory pond (see private ways).					

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Birnie ave. extension, Arch st., southerly.....	445	10″	Clay		....
Blaine st., White to Brunswick st.....	373	24″	Clay		$850.08
Blake hill, Fort Pleasant ave., easterly.....	244	10″	Clay		236.22
Bliss st., from Main to N. Y., N. H. & H. R. R...	1,284	12″	Cem.		1,285.90
Bloomfield st., Oakland to Earl st.....	500	18″	Clay	$1,692.55	
	527	15″	Clay		
Earl st. to Pasadena ave.	550	12″	Clay	917.72	
	273	10″	Clay		
					2,610.27
Bond place, including 41 feet in Bridge st. (for cost see Symonds ave.).	203	12″	Cem.		....
Bond st., Garden brook	341	2′-0″x3′-0″	Brick	1,580.25	
sewer to Chestnut st...	959	24″	Clay	2,285.89	
					3,866.14
Bowdoin st., Worthington	660	15″	Cem.	762.11	
st., southerly.....	285	12″	Clay	371.52	
Worthington to Ingersoll grove.....	819	12″	Cem.	758.64	
					1,892.27
Bowles st., Bay to McKnight.....	695	15″	Cem.	1,083.39	
	64	15″	Clay	136.50	
Pease st., northerly.....	275	8″	Clay	62.76	
					1,282.65
***Bowles park,** Ardmore st., easterly.....	167	10″	Clay		97.15
Boylston st., Cypress to	610	18″	Cem.		
Clinton.....	346	15″	Cem.		1,656.24
Bradford st., North Main	352	15″	Cem.		
to Fulton st.....	758	12″	Cem.		1,301.99
Bridge st., Main st. to	798	12″	Cem.	762.38	
Conn. river.....	275	15″	Clay	429.14	
Main to Chestnut st.....	1,158	2′-0″x3′-0″	Brick	5,414.20	
					6,605.72
Brightwood ave., Plainfield st., westerly.....	221	15″	Clay		237.94
Bristol st., Wilbraham road	299	15″	Clay	599.47	
to Marlborough st.....	560	12″	Clay		
Marlborough st., southerly.....	552	10″	Clay	293.99	
					893.46
Broad st., Hanover to Main st.....	970	15″	Cem.		1,401.19

* Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Brookline ave., North st., easterly	328	12″	Clay		$29.57
	171	10″	Clay		
Brooklyn ave., Sumner ave., southerly	423	12″	Clay		329.56
Brown st., Yale to Bay st.	483	10″	Cem.		357.65
	21	8″	Cem.		
Brunswick st., Brooklyn ave., southerly	307	10″	Clay	$190.48	
Blaine to Bethel st	251	18″	Clay		
	252	15″	Clay	1,031.89	
	252	12″	Clay		
Bethel st., northerly	225	10″	Clay	237.07	
					1,459.44
Bryant st., Belmont to Sumner ave	274	15″	Clay		
	301	12″	Clay		763.96
	300	10″	Clay		
Buckingham place, Bay st., westerly	235	10″	Clay		168.97
Buckingham st., Bay to Clarendon st	651	12″	Clay		
Bay st., southerly	35	12″	Cem.	597.24	
State to Bay st	305	18″	Clay		
	345	15″	Clay	1,158.40	
	675	12″	Clay		
					1,755.64
Burlington st., Belmont ave., northerly	137	10″	Clay		....
Burr st., Andrew st., easterly	570	12″	Clay		499.91
Burton st., White st. to Kimberly ave	527	12″	Clay		690.97
	180	10″	Clay		
Butler st., Chestnut to Cass st	1,268	20″	Clay	2,119.54	
Cass st., easterly	321	20″	Clay	520.71	
					2,640.25
Calhoun st., North Main to North st	853	12″	Clay	701.77	
North st., easterly	300	8″	Clay	262.38	
					964.15
Cambridge st., Bay st., southerly	276	20″	Clay		
	331	18″	Clay	1,204.43	
	266	15″	Clay		
	302	12″	Clay		
	278	10″	Clay	411.63	
Burr st., northerly	162	10″	Clay	142.44	
					1,758.50
Card-factory pond (see private ways).					

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Carew st., Main st. to Garden brook (cost shown under Clinton st.)	*250	4′-6″x6′-9″	Brick	....	
	32	5′-0″ cir.	Brick	....	
	1,456	4′-3″ cir.	Brick		
Garden brook to Prospect st	1,257	3′-0″ cir.	Brick	$22,023.79	
	791	2′-8″ cir.	Brick		
Massasoit st., easterly	580	18″	Cem.	671.51	
	200	12″	Cem.	153.28	
Prospect to Armory st	989	2′-8″ cir.	Con.	8,513.49	
	1,365	2′-6″x3′-9″	Con.		
Armory to Liberty st	1,686	2′-2″x3′-3″ egg	Con.	5,955.05	
Liberty st., easterly	502	15″	Clay		
	499	12″	Clay	1,169.66	
	434	10″	Clay		
Carlisle st., Wilbraham road, southerly	400	10″	Clay		$38,486.78
	246	8″	Clay		355.69
Caseland st., Springfield st. to Armory st	446	15″	Clay		
	462	12″	Clay		1,921.54
	215	10″	Clay		
Cass st., Liberty to Franklin st	500	12″	Clay	575.28	
	163	10″	Clay		
Linden st., southerly	596	15″	Clay	892.07	
Linden st., northerly	224	12″	Clay		
Castle ave., Sumner ave., southerly	526	12″	Clay		1,467.35 675.22
Catharine st., Dartmouth to McKnight st	833	2′-0″x3′-0″	Brick	4,500.61	
State to McKnight st	348	15″	Clay		
	438	12″	Clay	1,348.95	
	333	10″	Clay		
					5,849.56
Cedar st., Pine to Walnut st	180	3′-10″x5′-9″	Brick	889.35	
	1,074	3′- 8″x5′-6″	Brick	6,206.73	
Pine st., westerly	378	12″	Cem.	324.09	
					7,420.17
Cedar st., I. O., Main to river	433	2′-0″x3′-0″	Brick	2,001.44	
Main to Centre st	274	12″	Clay	263.92	
					2,265.36
Cemetery brook (see private ways).					
Center street, Oak Grove ave., northerly	1,008	10″	Clay		371.80

* Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Centre st., I. O., Oak to Pine st.	463	12″	Cem.	$546.58	
Pine to Cedar st.	349	12″	Clay	668.19	
	300	10″	Clay		
Cedar st., easterly	519	10″	Clay	474.04	
					$1,688.81
Central st., Main st., easterly	99	15″	Cem.	147.60	
	546	12″	Cem.	385.49	
Main to Maple st.	63	2′-0″x3′-0″	Brick	119.57	
	463	2′-0″x3′-0″	Con.	2,332.17	
	*41	1′-10″x2′-9″	Con.	452.04	
	460	24″	Clay	2,665.22	
	434	20″	Clay		
near Maple st. to Sterns terrace	549	18″	Clay	883.33	
	105	12′	Clay	199.95	
Sterns terrace to Cedar st.	334	18″	Cem.	102.50	
Pine st., westerly	500	12″	Cem.	568.42	
Pine to Spruce st.	339	12″	Cem.	376.00	
	335	12″	Clay	514.05	
	310	10″	Clay		
Spruce to Hancock st.	861	20″	Clay	1,401.59	
Hancock to Mill st.	597	2′-0″x3′-0″	Brick	2,135.31	
Mill st. to Mill river	40	24″	Clay	136.83	
					12,420.07
Chapel st., Eastern ave., easterly	400	10″	Clay		228.54
Chapin terrace, Chestnut st., easterly	327	15″	Clay	1,124.82	
	279	12″	Clay		
*Marvin st., easterly	430	2′4″x3′6″	Con.	2,644.15	
					3,768.97
Charles st., Liberty to Franklin st.	27	12″	Clay	647.16	
	620	12″	Cem.		
Liberty st., southerly	29	12″	Clay	12.94	
					660.10
Charter ave., Walnut st., easterly	527	12″	Clay		564.24
Chase ave., Fort Pleasant ave., easterly	238	12″	Clay		24.49
	333	10″	Clay		
Cherrelyn ave., Phœnix st., southerly	300	15″	Clay	410.62	
	651	12″	Clay	574.73	
					985.35
Cherry st., Mill river to Central st.	398	18″	Clay		1,476.91
	434	15″	Clay		
	251	12″	Clay		
	295	10″	Clay		

*Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Cherryvale ave., Longhill st. to Florentine gardens	401	10″	Clay		$15.74
	195	8″	Clay		
Chester st., Mill st., northerly	459	12″	Clay	$549.83	
	161	10″	Clay		
	112	8″	Clay	....	
					549.83
Chestnut st., Edwards st., southerly	575	12″	Cem.	595.03	
Mattoon st., southerly	288	15″	Cem.	319.69	
Pearl to Mattoon st.	313	1′-4″x2′-0″	Brick	445.40	
Pearl to Bridge st.	143	1′-8″x2′-6″	Brick	599.51	
Bridge to Worthington st.	480	2′-0″ cir.	Brick	....	
Worthington to Bridge st.	353	24″	Clay	1,175.53	
Worthington to Taylor st.	60	18″	Cem.	302.35	
	244	12″	Cem.		
Lyman st. to B. & A. R. R.	134	18″	Cem.	366.50	
	72	12″	Cem.		
Ferry st., northerly	150	12″	Clay	767.51	
Franklin st., southerly	488	12″	Cem.	378.49	
Franklin to Greenwood st.	224	24″	Clay	1,248.43	
Greenwood st., northerly	173	12″	Cem.	128.38	
Essex to Everett st.	374	15″	Cem.	586.72	
Carew st., southerly	126	8″	Clay	100.68	
Carew to Prospect st.	424	24″	Clay	1,618.64	
	537	20″	Clay		
Prospect st., northerly	220	12″	Cem.	251.23	
Bancroft st., southerly	172	12″	Cem.	123.00	
	108	12″	Clay	190.55	
	19	10″	Clay		
Bancroft to Montmorenci st.	391	15″	Cem.	535.24	
Bancroft to Montmorenci st. (see Bancroft st.)	....	3′-2″x4′-9″	Brick	....	
Montmorenci to Waverly st.	185	12″	Cem.	1,100.74	
	717	12″	Clay		
Douglas st., southerly	450	10″	Clay	432.05	
Douglas to Springfield (see Springfield st.)	....	3′-6″ cir.	Brick	....	
Merwin st., southerly	178	10″	Clay	....	
Eagle st., northerly	87	15″	Clay	....	
Eagle st., southerly	171	10″	Clay	....	
Noble to Jenks st.	341	12″	Clay	653.42	
					11,919.09
Chestnut st., I. O., Worcester to Hampden st.	342	15″	Cem.	340 25	
	30	15″	Clay	55.26	
Hampden to Berkshire st.	307	15″	Clay	342.65	
					738.16

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SEWER SYSTEM.—*Continued*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Chicopee road, land of B. & A. R. R., easterly to St. James ave.	*1,170	2'-10"x4'-3"	Con.	$6,574.76	
Carew st., northerly	451	10"	Clay	391.91	
					$6,966.67
Chilson st., Sumner ave., southerly	304	10"	Clay		252.28
Church st., Garden brook to North st.	636	18"	Clay		1,731.13
Churchill st., Sumner ave. to Garfield st.	580	12"	Clay	151.22	
	55	8"	Clay	6.89	
					158.11
Clantoy st., Phœnix to Dupont st.	398	15"	Clay		
	517	12"	Clay		1,221.21
	366	10"	Clay		
Claremont st., Orange st., southerly	492	10"	Clay		264.58
Clarendon st., Worthington st., westerly	205	10"	Clay	225.80	
Worthington to St. James ave.	336	18"	Cem.		
St. James ave. to Sherman st.	280	15"	Clay	1,859.31	
	605	12"	Clay		
					2,085.11
Clark st., Hancock st., westerly	520	10"	Clay		531.80
Clayton st., Plainfield st., westerly	299	18"	Clay	583.76	
	322	15"	Clay	497.83	
	315	12"	Clay	688.43	
	320	10"	Clay		
					1,770.02
Clermont st., I. O., Healey ave., easterly	150	10"	Clay		123.28
Cleveland st., Armory to Liberty st.	274	18"	Clay		
	250	15"	Clay		
	276	12"	Clay		790.48
	284	10"	Clay		
Clifford st., Bay st., northerly	250	12"	Clay		
	119	10"	Clay		357.34
Clifton ave., Central st., southerly	398	8"	Clay		134.54
Cliftwood st., Sumner ave., southerly	464	10"	Clay		65.99
Clinton st., Fulton to Boylston st.	150	10"	Clay	11.07	
Boylston st., easterly	410	12"	Cem.	441.52	
submerged outlet	176	24"	W'd		
	24	24"	C-ir.	2,207.90	

* Elliptical.

Digitized by Google

SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Conn. river to Fulton st..	593	4′-10″x7′-3″			
Fulton st., Clinton to Sargeant st.....					
Sargeant st., Fulton to Main st.....			Brick	$26,137.87	
Carew st., Main st. to Garden brook.....					
(For lengths and sizes see individual streets.)....					
					$28,798.36
Clyde st., Plainfield st.,	350	18″	Clay		
westerly.....	350	15″	Clay		1,519.51
	271	12″	Clay		
College st., State st. to					
Shattuck ave.....	839	12″	Clay	662.25	
*Shattuck ave. to Acorn st.	311	12″	Clay	457.62	
	900	10″	Clay		
State st. to Wilbraham	34	12″	Clay	387.72	
road.....	443	10″	Clay		
					1,507.59
Collins st., Eastern ave. to	300	12″	Clay		457.04
Logan st.....	269	10″	Clay		
Colonial ave., State st.,	326	12″	Clay		69.22
southerly.....	348	10″	Clay		
Colton st., Wilbraham road	448	18″	Clay		
to Beacon st.....	569	15″	Clay		2,048.71
	658	12″	Clay		
Columbia terrace, Liberty					
st., north and east.....	498	10″	Clay		....
Commonwealth ave., Bel-	441	24″	Clay		
mont to Washington	500	20″	Clay	2,878.00	
ave.....	519	18″	Clay		
Washington ave. to Fair-					
view st.....	691	15″	Clay	720.72	
					3,598.72
Concord terrace, Wilbra-					
ham road, northerly...	253	10″	Clay		353.06
Congress st., Garden brook					
to Main st.....	53	12″	Cem.	75.46	
	319	12″	Clay	705.44	
Garden brook to Chestnut	133	20″	Clay		
st.....	198	18″	Clay		
	369	15″	Clay	1,463.00	
	288	12″	Clay		
	119	15″	Cem.		
	76	10″	Cem.	277.22	
					2,521.12

*Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Connecticut ave., Farnsworth st., southerly....	221	10″	Clay		$177.05
Continental st., Sumner ave., southerly.....	215	12″	Clay		102.05
	266	10″	Clay		
Converse st., Sumner ave. to Vermont st.....	506	18″	Clay		443.87
Cook's ave., Worthington st. to N. Church ave...	117	15″	Cem.		
N. Church ave., southerly (includes cost of N. Church ave.).....	69	10″	Cem.		672.96
Coomes st., Leete st., southerly.....	260	12″	Clay		1,387.68
Cornell st., Dartmouth terrace to Wellesley st....	185	15″	Clay		
	374	12″	Clay	$543.05	
Wellesley st., easterly....	186	10″	Clay	208.20	
Princeton st., westerly...	52	10″	Cem.	47.30	
	86	8″	Clay	88.04	
Princeton st., easterly....	181	10″	Cem.	132.12	
	120	10″	Clay	180.93	
					1,199.64
Cortland st., State st., northerly.....	164	15″	Clay		
	621	12″	Clay		723.18
Cottage ave. (see Melrose st.)					
Court st., Court Square ave., westerly.....	461	12″	Cem.	621.55	
Main st. to Court Sq. ave.	200	12″	Cem.	309.67	
					931.22
Crane st., Franklin st., northerly.....	299	10″	Clay		331.87
Crosby st., Walnut st., westerly.....	321	10″	Clay		231.38
Cross st., Main to Willow st.....	388	18″	Clay	951.12	
Willow st., easterly.....	363	12″	Cem.	352.25	
					1,303.37
Crossett lane, Willow st., westerly.....	169	10″	Clay		259.82
Crystal ave., Belmont ave., easterly.....	251	15″	Clay		
	250	12″	Clay	24.07	
	298	10″	Clay		
*Dickinson st., westerly..	362	15″	Clay	650.64	
	372	12″	Clay		
					674.71

* Surface drainage only.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Cumberland st., Chestnut st., westerly	167	10″	Clay	$125.29	
North Main to North st.	205	15″	Clay	300.96	
	238	12″	Clay	284.06	
					$710.31
Cypress ave., Cypress st.,	360	12″	Cem.	484.08	
northerly	40	12″	Clay	23.78	
					507.86
Cypress st., Conn. river to Garden brook in Ferry st.	1,081	3′-4″x5′-0″	Brick	10,048.85	
*Connecticut river to Fulton st.	385	4′-10″x7′-3″	Con.	3,919.09	
*Fulton to Main st.	691	4′- 2″x6′-3″	Con.	6,470.80	
					20,438.74
Dale st., northerly from sewer 60 ft. south of Hubbard ave.	203	10″	Clay	184.27	
Winthrop st., southerly	46	8″	Clay	13.08	
Winthrop st., northerly	123	10″	Clay	259.62	
William st., northerly	143	10″	Clay	288.91	
					745.88
Dartmouth st., St. James ave. to Yale st.	973	3′-0″x4′-6″	Brick		8,247.06
Yale to Bowles st.	295	2′-6″x3′-9″	Brick		
Dartmouth terrace, Worthington to Cornell st.	499	20″	Clay		2,213.06
	357	18″	Clay		
	177	15″	Clay		
Davis court, Bridge st. to Harrison ave.	450	12″	Clay		500.67
Daviston ave., Allen to West Alvord st.	403	10″	Clay		1,181.33
West Alvord to East Alvord st.	400	10″	Clay		
East Alvord st., southeasterly	299	10″	Clay		
Sumner ave., northerly	267	18″	Clay		
Dawes st., Bay st., southerly	299	15″	Clay		207.36
	310	12″	Clay		
	518	10″	Clay		
Dawson ave., White street, westerly	350	10″	Clay		118.35
Daytona st., Belmont to Sumner ave.	524	12″	Clay		500.44
Demond ave., Fisk ave., westerly	510	12″	Clay		642.06
Plainfield st., easterly	403	12″	Clay		

* Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Denton circle, Liberty st., easterly	406	12″	Clay		$473.00
Dexter st., Knox to Pine st.	300	15″	Clay	$686.15	
	282	12″	Clay		
	202	10″	Clay	219.08	
					905.23
Dickinson st., Mill st. to	35	4′-6″ cir.	Brick		
Sumner ave.	60	2′-1″x5′-0″	Con.		
	251	5′-0″ cir.	Brick		
	679	4′-0″ cir.	Brick	44,606.56	
	*460	4′-10″x7′-3″	Brick		
	*869	4′-8″x7′-0″	Brick		
	*1,040	4′-4″x6′-6″	Brick		
	*996	4′-2″x6′-3″	Brick		
Sumner ave., southerly	1,379	2′-6″x3′-9″	Brick		
	324	2′-4″x3′-6″	Brick		
	434	2′-0″x3′-0″	Brick	8,806.81	
	312	1′-10″x2′-9″	Brick		
					53,413.37
Division st., Plainfield st., westerly	300	18″	Clay		
	250	15″	Clay		810.21
Donald st., Birnie ave., easterly	315	10″	Clay		406.60
Dorchester st., St. James ave. to Amherst st.	364	12″	Clay		
	238	10″	Clay		417.70
Dorne st., Smith st., northerly	219	12″	Clay		182.12
Douglas st., B. & M. R. R. to North Main st. (see Rowland ave.)	....	....	....	....	
Dover st., North Main to Chestnut st.	424	4′-6″ cir.	Brick		
	442	4′-0″ cir.	Brick		4,805.19
Dresden st., State st., southerly	359	12″	Clay		
	321	10″	Clay		25.14
Dunmoreland st., Wilbraham road, southerly	301	15″	Clay		
	302	12″	Clay	1,113.42	
	350	10″	Clay		
†Westford circle, northerly	584	10″	Clay	681.23	
†Westford circle to King st.	546	10″	Clay	510.37	
					2,305.02
†**Duryea st.,** Page boulevard to Eureka st.	1,068	10″	Clay		1,029.27

* Elliptical. † Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Dwight st., Sanford to State st.	258	2'-8"x4'-0"	Brick	$1,571.86	
Sanford st. to Harrison ave.	253	20"	Clay		
	229	18"	Clay	1,441.27	
	199	15"	Clay		
Harrison ave., northerly..	129	12"	Clay	319.96	
Hillman st., southerly....	226	10"	Clay	289.25	
Hillman st., northerly....	103	10"	Clay	420.28	
Worthington st., southerly	269	12"	Clay	433.91	
Worthington st., northerly	342	12"	Cem.	374.73	
					$4,851.26
Dwight st. extension, Saratoga st., southerly	249	12"	Clay		286.25
Dwight st. underpass, Liberty st., southerly.....	390	12"	Clay		....
Dymon st., Walnut st., easterly.....	415	12"	Cem.		385.92
Eagle st., North Main to Chestnut st.....	643	15"	Clay		....
Earl st., Bloomfield st., northerly.....	190	10"	Clay		157.32
East Alvord st., West Alvord st. to Daviston	495	18"	Clay		
avenue.....	598	12"	Clay		1,031.68
ast Court st., Dwight st.,	206	12"	Clay		
westerly.....	62	10"	Clay		303.10
East Hooker st., North	444	10"	Cem.	39.04	
Main to North st.....	255	10"	Clay	....	
					39.04
Eastern ave., Watershops pond to Manhattan st..	1,164	24"	Clay	2,164.43	
Manhattan to Alden st....	338	20"	Clay	636.21	
Alden to Collins st.....	231	12"	Clay	313.99	
Greene st., southerly....	125	8"	Clay	69.58	
Greene to Ladd st.....	38	15"	Clay	67.21	
Olive st., southerly.....	169	8"	Clay	167.87	
Lebanon to Olive st.....	159	12"	Cem.	190.96	
Lebanon to King st.....	194	12"	Cem.	351.89	
	55	12"	Clay	95.43	
King to Chapel st.....	152	10"	Cem.	166.50	
	101	10"	Clay	149.70	
Pendleton ave., northerly.	312	12"	Cem.	256.78	
Tyler st., northerly.....	286	12"	Cem.	181.30	
Quincy st., northerly.....	118	10"	Cem.	131.15	
Monroe st., southerly....	28	12"	Cem.	45.09	
	210	8"	Clay	179.00	
Monroe st., northerly....	29	12"	Cem.	51.50	
	123	8"	Clay	84.98	
Wilbraham rd., southerly	296	12"	Clay	1,193.62	
					6,497.19

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Eddywood ave., Sumner ave., northerly	328	10″	Clay		$436.66
*Edendale st., Page blvd. to Bowles park	1,471	10″	Clay		1,299.39
Edgemont st., State st., northerly	499	10″	Clay		554.05
	296	8″	Clay		
*Edgewood st., Acorn to Bay st	1,001	8″	Clay		443.73
Edwards st., Chestnut st., easterly	551	12″	Cem.		404.88
Eldredge st., Belmont ave., southerly	266	10″	Clay		245.15
Eleanor road, White st., southerly	277	15″	Clay		854.78
	430	12″	Clay		
Elliot st., Salem st., southerly	610	15″	Cem.	$730.48	
	243	12″	Cem.	341.99	
					1,072.47
Elm st., submerged outlet	191	24″	Wood	1,700.79	
	26	24″	C. Iron	359.80	
Conn. river to Water st	385	3′-9″ cir.	Brick	10,759.40	
Water to Main st	996	3′-8″x5′-6″	Brick		
					12,819.99
Elmwood st., Main to Hanover st	300	18″	Clay		1,058.02
	249	15″	Clay		
	299	12″	Clay		
Emery st., Boylston st., east and west	542	12″	Cem.		653.92
Essex street, Garden brook, westerly	418	15″	Cem.	355.00	
Garden brook to Chestnut st	1,115	2′-2″x3′-3″	Brick	7,140.62	
	204	18″	Cem.	355.33	
					7,850.95
Essex st., I. O., Oak to Myrtle st	254	12″	Clay	662.25	
Oak st., easterly	426	10″	Clay		
	183	10″	Clay	248.23	
					910.48
Eton st., Sumner ave. to Morningside park	502	12″	Clay		698.40
	272	10″	Clay		
Euclid ave., Belmont ave. to Dickinson st	389	12″	Clay	1,102.00	
	741	10″	Clay		
	77	8″	Clay	50.67	
†Dickinson st., westerly	350	15″	Clay	773.10	
	350	12″	Clay		
Dickinson st., easterly	275	10″	Clay	332.10	
Orange st., southerly	257	18″	Clay	871.20	
	172	10″	Clay		
Orange st., northerly	30	12″	Clay	23.07	
					3,152.14

*Sanitary sewer. † Surface drainage only.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Everett st., Chestnut st. to brook	323	15″	Cem.	$320.58	
brook to Cass st.	926	15″	Clay	821.43	
Cass st., easterly	313	15″	Clay	617.45	
					$1,759.46
Fairbanks place, Worthington st., northerly.	249	10″	Clay		220.66
Fairfield st., Litchfield to Garfield st.	376	12″	Clay	....	
	556	10″	Clay	351.64	
					351.64
Fairmount st., Commonwealth ave. to Lawndale st.	350	10″	Clay		173.17
Falmouth st., I. O., Parker st., westerly	204	18″	Clay		275.44
Farnsworth st., Hamburg st. to Connecticut ave.	530	20″	Clay	1,653.14	
	279	18″	Clay		
	341	12″	Clay	1,011.82	
	264	10″	Clay		
					2,664.96
Federal st., Worthington to Pearl st.	567	12″	Cem.	740.92	
Summer st., southerly	274	10″	Clay	172.00	
					912.92
Ferry st., Main to Garden brook (see Cypress st.).	....	....	....	....	
Garden brook to Chestnut st.	1,168	2′-4″x3′-6″	Brick	5,417.12	
Main st., easterly	*394	4′-2″x6′-3″	Con.	11,067.29	
	1,004	4′-9″ cir.	Con.		
					16,484.41
Firglade ave., Sumner ave. to Spruceland st.	350	10″	Clay	84.44	
	203	8″	Clay		
Spruceland to Pineywoods avenue	447	10″	Clay	....	
	67	8″	Clay	....	
Pineywoods ave. to Washington boulevard	242	12″	Clay	431.88	
	176	10″	Clay		
					516.32
Fisk ave., Rowland to Worcester ave.	272	24″	Clay		
	275	20″	Clay	1,073.11	
	298	10″	Clay		
Wason ave., southerly	299	24″	Clay		
	294	20″	Clay	1,216.81	
	248	12″	Clay		
					2,289.92

*Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Florence st., Pine st., easterly	824	15″	Cem.	$2,227.38	
	651	12″	Cem.		
Hancock st., easterly	253	10″	Cem.	323.93	
	26	10″	Clay	31.11	
					$2,582.42
Florentine gardens, Pineywoods ave., northerly	421	10″	Clay		81.89
Florida st., Worthington to Ingersoll Grove st.	555	15″	Clay	978.89	
	279	12″	Clay		
Worthington to St. James ave.	935	2′-2″x3′-3″	Brick	4,499.10	
St. James ave. to Bay st.	599	24″	Clay	1,832.21	
					7,310.20
Forest st., Belmont to Forest Park ave.	419	12″	Clay		806.38
	255	10′	Clay		
Forest Park ave., Fort Pleasant ave. to Garfield st.	1,081	24″	Clay	....	
	325	20″	Clay	1,217.48	
	562	18″	Clay		
Sumner ave., northerly	567	12″	Clay	177.07	
Sumner ave., southerly	66	10″	Clay	....	
	438	10″	Clay	379.92	
Pineywoods ave., northerly	380	10″	Clay	60.18	
					1,834.65
Fort st., Main to Water st.	633	12″	Cem.		633.43
Fort Pleasant ave., Mill river to Sumner ave.	888	2′-4″x3′-6″	Brick	13,339.80	
	1,825	2′-0″x3′-0″	Brick		
Mill st., southerly	428	12″	Clay	293.42	
					13,633.22
Foster st., Knox st., easterly	511	12″	Clay	517.25	
	224	12″	Cem.	34.68	
					551.93
Fountain place, Belmont ave., southerly	299	12″	Clay		310.25
Franklin st., Garden brook sewer to Main st.	434	18″	Cem.	593.13	
Garden brook sewer to Chestnut st.	919	2′-2″x3′-3″	Con.	4,106.84	
	295	20″	Clay	804.75	
Chestnut to Charles st.	273	15″	Clay	303.37	
Charles to Cass st	827	12″	Clay	1,168.25	
	276	10″	Clay		
Cass to Murray Hill ave.	621	12″	Clay	1,051.76	
	330	10″	Clay		
Nursery st., westerly	207	15″	Clay	....	
Nursery to Genesee st.	107	15″	Clay	199.93	
	557	15″	Cem.	....	
	27	12″	Clay	57.66	
					8,285.69

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Freeman terrace, Stockman to Phœnix st.	252	18″	Clay		$870.04
	270	15″	Clay		
Fremont st., Main to Water st.	780	1′-6″x1′-7″	Brick	$702.45	
Main st., westerly	656	12″	Cem.	692.92	
	30	12″	Clay	65.21	
					1,460.58
Fulton st., Cypress to Clinton st.	944	12″	Cem.	924.38	
*Clinton to Sargeant st. (cost shown under Clinton st.)	1,080	4′-8″x7′-0″	Brick	....	
	42	4′-10″x7′-3″	Brick	....	
Sargeant to John st.	555	15″	Cem.	1,219.02	
John st., northerly	314	12″	Clay		
	408	10″	Clay	674.48	
					2,817.88
Garden brook sewer (see private ways).					
Gardner ave., Gardner st., northerly	151	8″	Clay		73.11
Gardner st., Hanover to Water st.	655	2′-0″x3′-0″	Brick	1,995.23	
Water to Main st.	226	12″	Clay		
	199	10″	Clay	504.81	
					2,500.04
Garfield st., Forest Park ave., easterly	556	15″	Clay		
	514	12″	Clay	967.16	
Belmont ave., westerly	531	10″	Clay	379.57	
					1,346.73
Genesee st., Franklin st., southerly	200	10″	Clay	234.87	
Armory to Liberty st.	350	12″	Clay		
	351	10″	Clay	645.23	
					880.10
George st., Dexter st., southerly	409	10″	Clay		381.73
Girard ave., Bay to McKnight st.	944	12″	Clay		863.45
Glendell terrace, Euclid ave., easterly—north side	101	12″	Clay		
	175	10″	Clay	569.36	
Euclid ave., easterly—south side	268	10″	Clay	496.36	
					1,065.72
Goodrich st., Liberty st., northerly	240	10″	Clay		460.87

*Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Gordon st., Pasadena ave. to White st.	618	15″	Clay		$555.79
Governor st., Armory st. to Penacook ave.	424	20″	Clay		
	401	18″	Clay		
	402	15″	Clay		1,276.19
	224	12″	Clay		
Grace st., Birnie ave., easterly	274	15″	Cem.		51.56
Grand st., Revere st., easterly	250	15″	Clay		
	252	12″	Clay	....	
Revere st., westerly	151	10″	Clay	$30.85	
					30.85
Grant st., Magazine to Armory st.	588	12″	Cem.		477.26
Granville st., Eastern ave. to Logan st.	248	12″	Clay		
	247	10″	Clay		644.77
Gray's ave., Cypress st., northerly	495	12″	Cem.		460.92
Greenacre sq. (north), Foster st., easterly	201	10″	Clay		173.46
Greenacre sq. (south), Foster st., easterly	246	10″	Clay		185.96
Greenbrier st., Larkspur to Trillium st.	300	10″	Clay		
Blaine to Trillium st.	270	10″	Clay		322.19
Greene st., Hancock to Eastern ave.	610	18″	Cem.		
	793	15″	Cem.		1,897.68
Greene lane, Rimmon ave., westerly and northerly.	744	12″	Clay	....	
	143	10″	Clay	....	
					....
Greenleaf st., Sumner ave. to Garfield st.	527	12″	Clay		178.85
Greenwich st., Birnie ave., easterly	300	12″	Clay		
	300	10″	Clay		467.79
Greenwood st., Garden brook to Main st.	250	15″	Clay		
	136	12″	Clay	645.46	
Garden brook, easterly	538	15″	Clay		
	448	12″	Clay	1,639.27	
	117	10″	Clay		
					2,284.73
Grenada terrace, Dickinson to Ventura st.	220	18″	Clay		
	310	15″	Clay	828.48	
Ventura st., easterly	309	12″	Clay		
	216	10″	Clay	445.27	
					1,273.75

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Hillside place, Richelieu court, easterly	106	8″	Clay		....
Holland st., North Main st., easterly	225	12″	Clay		$425.75
	50	10″	Clay		
Holly st., I. O., Worcester to Hampden st.	377	15″	Clay	$419.11	
Hampden st., southerly	175	12″	Clay	117.69	
					536.80
Hollywood st., Commonwealth ave., easterly	211	12″	Clay	508.61	
	241	10″	Clay		
Dickinson st., easterly	174	10″	Clay	121.04	
					629.65
Holyoke st., Main st., westerly	734	12″	Cem.		987.24
Home st., Liberty st., westerly	424	10″	Clay	322.65	
Penacook ave., easterly	246	10″	Clay	246.22	
					568.87
Homer st., State st., southerly	31	12″	Clay		186.81
	464	10″	Clay		
Horace st., Dickinson st., northerly	363	12″	Clay		826.04
	411	10″	Clay		
Howard st., Main st., westerly	344	15″	Clay	837.22	
	321	12″	Clay		
Water st., easterly	276	12″	Cem.	255.78	
	30	12″	Clay	43.40	
Water st., westerly	314	12″	Cem.	326.98	
	31	12″	Clay	90.75	
					1,554.13
Hubbard ave., Main st., easterly	257	15″	Clay		630.47
	321	12″	Clay		
Hughes st., Sylvan ave., westerly	252	10″	Clay		233.16
Hunt terrace, Allen st., northerly	304	10″	Clay		....
Hunter place, State st., northerly	350	12″	Clay		602.72
	313	10″	Clay		
Huntington st., Birnie ave., easterly	300	12″	Clay		441.98
	300	10″	Clay		
Hyde ave., Fisk ave. to Plainfield st.	301	15″	Clay		712.99
	300	12″	Clay		
	219	10″	Clay		
Ingersoll grove, Worthington st., northerly	782	12″	Cem.	1,038.85	
	218	8″	Clay		
Florida st., easterly	146	10″	Clay	90.97	
Bowdoin st., easterly	132	10″	Clay	106.53	
					1,236.35

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Ionia st., State st., northerly	720	10″	Clay		$445.92
Irvington st., Sumner ave. to Morningside Park...	300	12″	Clay		201.07
	400	10″	Clay		
Itendale st., Belmont ave. to Washington st.....	277	20″	Clay		1,520.83
	455	18″	Clay		
James st., Cedar st., northerly.....	289	15″	Cem.		924.38
Jefferson ave., North Main to Chestnut st.....	534	12″	Cem.		
	299	20″	Clay		
See private ways also.	299	18″	Clay	$1,663.86	
	276	15″	Clay		
	60	12″	Clay		
	414	12″	Cem.	531.66	
	78	6″	Clay	37.89	
					2,233.41
Jenks st., North Main to Chestnut st.....	404	12″	Clay		699.05
John st., Fulton to Plainfield st.....	652	12″	Cem.		420.18
Johnson st., Dickinson st. to Pasadena ave.....	1,964	18″	Clay		3,756.87
Johnson st., I. O., Main to South st.....	500	20″	Clay		1,254.26
	463	18″	Clay		
Keith st., Belmont ave. to Dickinson st.....	551	12″	Clay		
	551	10″	Clay	1,106.40	
*Dickinson st., southerly.	350	15″	Clay		
	301	12″	Clay	823.06	
	186	10″	Clay		
					1,929.46
Kendall ave., Liberty st. to Sherman ave.....	907	18″	Clay		2,156.19
Kensington ave., Oakland to Earl st.....	451	18″	Clay		2,008.61
	402	15″	Clay		
Earl st. to Pasadena ave.	567	12″	Clay		
	260	10″	Clay		
Kenwood park, Belmont ave., northerly.....	130	12″	Clay		139.96
	1,127	10″	Clay		
Kenwood terrace, Belmont to Sumner ave.....	218	12″	Clay		463.91
	328	10″	Clay		
Kibbe Ave., Summer to Worthington st.....	260	18″	Clay		552.92
†**Kibbe Hollow**, northerly of Worthington st.....	447	24″	Clay		....
Kimberly ave., White st., northerly.....	250	12″	Clay		986.41
	282	10″	Clay		
Rupert st. to Burton st..	522	10″	Clay		

* Surface drainage only. † Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
King st., Walnut to Hancock st.	504	15″	Cem.	$921.37	
	441	12″	Cem.		
Hancock to Logan st.	311	20″	Clay		
	399	18″	Clay	2,650.91	
	686	15″	Clay		
	238	12″	Clay	701.29	
	239	10″	Clay		
*Westford to Wilbraham ave.	427	10″	Clay	321.81	
Westford ave., easterly	225	10″	Clay	197.13	
					$4,792.51
Knox st., Mill river to Windsor st.	1,303	24″	Clay		3,132.56
Ladd st., Eastern ave. to Logan st.	243	15″	Clay		424.92
	304	12″	Clay		
Lafayette st., St. James ave. to Amherst st.	582	12″	Clay		545.34
	21	10″	Clay		
Langdon st., Penacook ave., easterly	504	12″	Clay		679.73
	326	10″	Clay		
Larkspur st., White st., easterly	299	15″	Clay		500.85
	304	12″	Clay		
	101	10″	Clay		
Laurel st., Conn. river to Plainfield st.	534	18″	Cem.	1,548.19	
	405	18″	Clay	1,164.93	
	20	18″	Clay	44.62	
					2,757.74
Laverne ave., Bellevue ave. to Marengo park	211	10″	Clay		....
Lawndale st., Belmont ave. to Glenwood st.	300	12″	Clay		614.64
	302	10″	Clay		
Lebanon st. (see Hancock)	....	3′-6″x5′-3″	Brick	....	
Hancock st., westerly	158	2′-0″x3′-0″	Brick	1,495.77	
Hancock to Eastern ave.	606	18″	Cem.	1,869.20	
	816	15″	Cem.		
					3,364.97
Ledyard st., Armory st., northwesterly	478	10″	Clay		321.39
Leete st., Longhill st., easterly	431	18″	Clay		1,570.13
	270	15″	Clay		
	150	10″	Clay		
Lenox st., Sumner ave., southerly	465	10″	Clay		103.74
Leonard st., Franklin st., northerly	367	12″	Clay		644.74
Leslie terrace, Liberty st., northerly	151	12″	Clay		236.20
Lester st., Sumner ave. to Vermont st.	286	12″	Clay		343.74
	279	10″	Clay		

*Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Lexington ave., Chestnut to Massasoit st.	668	12″	Clay	$546.52	
*Massasoit st., easterly	437	2′-0″x3′-0″	Con.	1,996.91	
					$2,543.43
Leyfred terrace, Belmont ave., northerly	300	18″	Clay		
	317	15″	Clay		957.30
Liberty st., Garden brook to Main st.	118	12″	Clay	179.19	
Garden brook to Chestnut st	70	1′-6″x1′-7″	Brick		
	172	12″	Cem.		
	644	20″	Clay	2,902.14	
	325	15″	Clay		
	184	12″	Clay		
Chestnut to Webster st.	784	2′- 4″x3′-6″	Brick		
	659	1′-10″x2′-9″	Brick	9,123.49	
	684	2′- 2″x3′-3″	Brick		
Webster to Armory st.	366	3′- 0″x4′-6″	Brick		
	1,282	2′- 2″x3′-3″	Brick	5,383.15	
	317	1′-10″x2′-9″	Brick		
	449	2′- 2″x3′-3″	Brick	2,566.69	
Armory to Roy st.	1,194	24″	Clay		
	1,103	18″	Clay	6,390.09	
	1,447	15″	Clay		
					26,544.75
Lillian st., Oak st., easterly	297	12″	Clay		232.47
Lincoln st., Magazine to Federal st.	823	12″	Clay		676.54
Linden st., Chestnut to Cass st.	470	18″	Cem.		
	862	15″	Cem.		1,318.15
Litchfield st., Belmont ave. to Fairfield st.	159	15″	Clay	335.11	
Garfield st., northerly	69	6″	Clay	7.10	
					342.21
Locust st., York to Mill st.	84	3′-0″x4′- 6″	Brick		
	364	2′-9″x4′-1½″	Brick	6,804.18	
	686	2′-6″x3′- 9″	Brick		
Dickinson st., westerly	197	20″	Clay	617.01	
					7,421.19
Logan st., Collins st., southerly	97	10″	Clay	133.56	
Collins to Ladd st.	183	10″	Clay	188.75	
Ladd st., northerly	88	10″	Clay	67.64	
Granville st., northerly	200	10″	Clay	169.04	
					558.99
Lombard st., Water st., easterly	500	12″	Cem.		382.41

*Egg shape.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
King st., Walnut to Hancock st.	504	15″	Cem.	$921.37	
	441	12″	Cem.		
Hancock to Logan st.	311	20″	Clay		
	399	18″	Clay	2,650.91	
	686	15″	Clay		
	238	12″	Clay	701.29	
	239	10″	Clay		
*Westford to Wilbraham ave.	427	10″	Clay	321.81	
Westford ave., easterly	225	10″	Clay	197.13	
					$4,792.51
Knox st., Mill river to Windsor st.	1,303	24″	Clay		3,132.56
Ladd st., Eastern ave. to Logan st.	243	15″	Clay		424.92
	304	12″	Clay		
Lafayette st., St. James ave. to Amherst st.	582	12″	Clay		545.34
	21	10″	Clay		
Langdon st., Penacook ave., easterly	504	12″	Clay		679.73
	326	10″	Clay		
Larkspur st., White st., easterly	299	15″	Clay		500.85
	304	12″	Clay		
	101	10″	Clay		
Laurel st., Conn. river to Plainfield st.	534	18″	Cem.	1,548.19	
	405	18″	Clay	1,164.93	
	20	18″	Clay	44.62	
					2,757.74
Laverne ave., Bellevue ave. to Marengo park	211	10″	Clay		....
Lawndale st., Belmont ave. to Glenwood st.	300	12″	Clay		614.64
	302	10″	Clay		
Lebanon st. (see Hancock)	....	3′-6″x5′-3″	Brick	....	
Hancock st., westerly	158	2′-0″x3′-0″	Brick	1,495.77	
Hancock to Eastern ave.	606	18″	Cem.	1,869.20	
	816	15″	Cem.		
					3,364.97
Ledyard st., Armory st., northwesterly	478	10″	Clay		321.39
Leete st., Longhill st., easterly	431	18″	Clay		1,570.13
	270	15″	Clay		
	150	10″	Clay		
Lenox st., Sumner ave., southerly	465	10″	Clay		103.74
Leonard st., Franklin st., northerly	367	12″	Clay		644.74
Leslie terrace, Liberty st., northerly	151	12″	Clay		236.20
Lester st., Sumner ave. to Vermont st.	286	12″	Clay		343.74
	279	10″	Clay		

*Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Lexington ave., Chestnut to Massasoit st.....	668	12″	Clay	$546.52	
*Massasoit st., easterly..	437	2′-0″x3′-0″	Con.	1,996.91	
					$2,543.43
Leyfred terrace, Belmont ave., northerly.....	300	18″	Clay		957.30
	317	15″	Clay		
Liberty st., Garden brook to Main st.....	118	12″	Clay	179.19	
Garden brook to Chestnut st.....	70	1′-6″x1′-7″	Brick		
	172	12″	Cem.		
	644	20″	Clay	2,902.14	
	325	15″	Clay		
	184	12″	Clay		
Chestnut to Webster st...	784	2′- 4″x3′-6″	Brick		
	659	1′-10″x2′-9″	Brick	9,123.49	
	684	2′- 2″x3′-3″	Brick		
Webster to Armory st....	366	3′- 0″x4′-6″	Brick	5,383.15	
	1,282	2′- 2″x3′-3″	Brick		
	317	1′-10″x2′-9″	Brick	2,566.69	
	449	2′- 2″x3′-3″	Brick		
Armory to Roy st.....	1,194	24″	Clay		
	1,103	18″	Clay	6,390.09	
	1,447	15″	Clay		
					26,544.75
Lillian st., Oak st., easterly	297	12″	Clay		232.47
Lincoln st., Magazine to Federal st.....	823	12″	Clay		676.54
Linden st., Chestnut to Cass st.....	470	18″	Cem.		1,318.15
	862	15″	Cem.		
Litchfield st., Belmont ave. to Fairfield st.....	159	15″	Clay	335.11	
Garfield st., northerly....	69	6″	Clay	7.10	
					342.21
Locust st., York to Mill st.	84	3′-0″x4′- 6″	Brick		
	364	2′-9″x4′-1½″	Brick	6,804.18	
	686	2′-6″x3′- 9″	Brick		
Dickinson st., westerly..	197	20″	Clay	617.01	
					7,421.19
Logan st., Collins st., southerly.....	97	10″	Clay	133.56	
Collins to Ladd st.....	183	10″	Clay	188.75	
Ladd st., northerly.....	88	10″	Clay	67.64	
Granville st., northerly...	200	10″	Clay	169.04	
					558.99
Lombard st., Water st., easterly.....	500	12″	Cem.		382.41

*Egg shape.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Longfellow terrace, White	246	12″	Clay	$290.03	
st., westerly	200	10″	Clay		
southerly towards Belmont ave.	229	10″	Clay	153.84	
					$443.87
Longhill st., submerged	26	18″	Clay		
outlet	290	18″	W'd	5,387.70	
	28	18″	C-ir.		
Conn. river to Washington boulevard	1,373	24″	Clay	2,086.09	
(See Washington boulevard)	283	2′-4″x3′-6″	Brick	1,936.97	
Washington ave., northerly	399	15″	Clay		
	512	12″	Clay	1,027.66	
	160	10″	Clay		
Sumner ave., southerly	356	8″	Clay	386.61	
Main st. to Sumner ave.	90	2′-0″x3′-0″	Con.	447.63	
	136	24″	Clay		
	265	18″	Clay		
	350	15″	Clay	3,519.36	
	400	12″	Clay		
	777	10″	Clay		
					14,792.02
Longview st., Leete st., southerly	265	12″	Clay		405.14
Loring st., Water st., easterly	607	12″	Cem.	733.41	
	40	12″	Clay	48.34	
					781.75
Lowell st., Conn. river to	305	18″	Clay		
Plainfield st.	396	15″	Clay		1,063.24
	466	12″	Clay		
	283	10″	Clay		
Lowell st. pumping station	...	....	...		2,991.84
Lyman st., Main to Chestnut st.	1,335	2′-0″x3′-0″	Brick	6,113.12	
Chestnut to Spring st.	418	15″	Clay	1,793.76	
	302	15″	Cem.	695.83	
					8,602.71
Lyndale st., Belmont ave.,	350	15″	Clay		
northerly	300	12″	Clay		952.60
	324	10″	Clay		
Lyons st., I. O., Main st.,					
northerly	261	18″	Clay	389.58	
Worcester st., southerly	319	10″	Clay	440.03	
					829.61
Madison ave., Central st.,	250	12″	Clay		737.57
northerly	287	10″	Clay		
Magazine st., Worthington	682	18″	Cem.		1,267.96
to Lincoln st.	249	15″	Cem.		

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Magnolia terrace, east side, Sumner to Spruceland ave.	620	10″	Clay	$1,233.46	
west side, Sumner to Spruceland ave.	621	10″	Clay		
overflow connection between east and west side	62	8″	Clay	26.00	
Washington to Spruceland ave.	362	24″	Clay	21.08	
	602	12″	Clay		
					$1,280.54
Main st., Pecousic ave. to Longhill st.	191	2′-4″x3′-6″	Con.	1,077.51	
Mill river to Mill st.	258	10″	Clay	342.25	
Locust to Mill st.	385	15″	Clay	1,926.01	
	394	12″	Clay		
Mill st., southerly	55	15″	Cem.	96.72	
York st. to B. & A. R. R.	56	7′-0″ cir.	Brick	20,812.99	
	1,772	6′-6″ cir.	Brick		
	906	5′-6″ cir.	Brick		
	990	5′-0″ cir.	Brick		
	1,624	3′-4″x5′-0″	Brick	34,453.56	
	864	2′-4″x3′-6″	Brick		
	264	12″	Clay	359.25	
Cypress to Emery st.	298	15″	Clay	1,210.56	
	270	12″	Clay		
Emery st., southerly	278	12″	Cem.	389.20	
Emery to Sargeant st.	341	24″	Clay	2,840.72	
	442	20″	Clay		
	480	18″	Clay		
	186	15″	Clay		
					63,508.77
Main st., I. O., Chicopee river to Pine st.	2,321	2′-4″x3′-6″	Brick	7,654.03	
Pine to Cedar st.	500	18″	Cem.	896.63	
	185	15″	Cem.		
	103	12″	Clay	128.49	
Cedar to Lyons st.	1,110	2′-0″x3′-0″	Brick	5,068.28	
Chicopee river through private land and Main st. to Beaudry st.	699	18″	Clay	1,530.17	
	232	15″	Clay		
	212	10″	Clay		
Parker st., westerly	473	12″	Clay	517.35	
Lyons st., easterly	205	24″	Clay	1,334.58	
	245	18″	Clay		
	129	12″	Clay		
					17,129.53
Malden st., Allen st., southerly	542	15″	Clay		153.77
	291	12″	Clay		
	581	10″	Clay		

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Manchester terrace, White st., southerly.....	254	15″	Clay		$518.76
Manhattan st., Eastern ave. to Walnut st.....	290	15″	Clay		
	645	12″	Clay		862.70
	205	10″	Clay		
Mansfield st., White st., easterly.....	351	18″	Clay		
	136	15″	Clay		900.76
Maple st., State to Temple st.....	315	18″	Clay	$675.51	
	....	....	....	51.55	
Park to High st.....	225	18″	Clay	505.21	
Union st., southerly.....	515	18″	Cem.		
	135	12″	Cem.	959.13	
Central st. to Avon place.	192	24″	Clay	1,349.26	
Central st., southerly....	33	18″	Cem.		
	388	12″	Cem.	160.95	
	784	12″	Clay	1,289.58	
Pine st., northerly.....	195	15″	Cem.		
	522	12″	Cem.	1,093.44	
					6,084.63
Mapledell st., State to Burr st.....	337	15″	Clay		
	300	12″	Clay		133.34
	388	10″	Clay		
Maplewood terrace, Fort Pleasant ave., easterly.	682	15″	Clay		
	329	12″	Clay		22.21
	178	10″	Clay		
Marble st., Main st., easterly.....	222	18″	Cem.		
	586	15″	Cem.		1,248.12
	242	12″	Cem.		
Marengo park, Belmont ave., easterly.....	443	15″	Clay		
	612	12″	Clay		117.62
	778	10″	Clay		
Margaret st., Water st., westerly.....	520	12″	Cem.	540.89	
Water st., easterly.....	825	12″	Cem.	855.32	
	30	12″	Clay	31.41	
					1,427.62
Marion st., Bay st., southerly.....	833	12″	Clay	944.01	
Chapin st., easterly.....	94	10″	Clay		
	319	8″	Clay	25.89	
					969.90

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Market st., State st., northerly	119	10″	Clay	....	
Sanford st., southerly	200	12″	Clay	$437.55	
Sanford st. to Harrison ave.	301	15″	Clay	1,197.72	
	350	12″	Clay		
Harrison ave., southerly	154	12″	Cem.	....	
					$1,635.27
Marlboro ave., State st. to Wilbraham road	300	12″	Clay		555.21
	449	10″	Clay		
Marlborough st., Bristol st., easterly	160	10″	Clay		101.12
Marshall place (see Melrose st.).					
Mason place, Dickinson st., southerly	200	12″	Clay		433.02
	276	10″	Clay		
Mason st., State to Pease st.	349	15″	Clay		746.99
	359	12″	Clay		
Massachusetts ave., Wilbraham road, southerly	300	15″	Clay		
	300	12″	Clay	1,056.92	
	227	10″	Clay		
Westford circle, northerly	218	12″	Clay	47.67	
	489	10″	Clay		
*Westford circle, southerly	603	12″	Clay	798.34	
					1,902.93
Massasoit place, Massasoit st., easterly	381	12″	Clay		....
Massasoit st., Carew st., northerly	709	12″	Cem.	579.69	
	131	10″	Clay	124.62	
Lexington ave., southerly	300	12″	Clay	366.86	
	298	10″	Clay		
Montmorenci st. to Lexington ave.	354	2′-2″x3′-3″	Con.	1,468.20	
†Montmorenci st., northerly across private land to Chapin terrace	377	2′-10″x4′-3″	Con.	2,758.01	
Pratt st., southerly	149	10″	Clay	218.09	
					5,515.47
Mattoon st., Chestnut to Salem st.	356	1′-4″x2′-0″	Brick		778.21
	87	15″	Cem.		
Maynard st., State st. to Shattuck ave.	431	15″	Clay	670.82	
	400	12″	Clay		
*Shattuck ave., northerly	1,029	10″	Clay	705.78	
					1,376.60

*Sanitary sewers. †Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
McKnight st., Catharine to Sherman st.	255	15″	Cem.	$421.42	
	30	15″	Clay	56.78	
Catharine to Bowles st.	141	10″	Cem.	67.27	
	26	10″	Clay	75.32	
Bowles st. to Girard ave.	119	12″	Cem.	81.85	
	263	10″	Clay	233.51	
					$936.15
Mechanic st., Water st., westerly	302	12″	Cem.	205.25	
	20	8″	Clay	72.99	
					278.24
Medford st., Birnie ave., easterly	390	12″	Clay		367.29
	183	10′	Clay		
Melrose st., sewer between Hickory and Melrose st.	429	18″	Clay		
Eastern ave. to Walnut st.	263	15″	Clay		
	558	10″	Clay		
Marshall place, Eastern ave. to Walnut st.	415	10″	Clay		1,577.08
	169	8″	Clay		
Cottage ave., Melrose st. to Marshall place	74	12″	Clay		
Merrick ave., King st., southerly	275	12″	Cem.	48.50	
	24	12″	Clay	29.26	
					77.76
Merwin st., North Main to Chestnut st.	774	15″	Clay		....
Middlesex st., Wilbraham road to Marlborough st.	296	15″	Clay		945.92
	304	12″	Clay		
	474	10″	Clay		
Mill river, intercepting sewer, Mill river to Locust st.	370	5′-3″ cir.	Brick	6,066.64	
	691	4′-0″ cir.	Brick		
Locust to Hickory st.	587	4′-0″ cir.	Brick		
	131	3′-6″x5′-3″	Brick		
	1,743	5′-9″ cir.	Brick	42,706.00	
	779	4′-3″ cir.	Brick		
	1,611	3′-3″ cir.	Brick		
*in Mill and Hickory sts.	833	2′-2″x3′-3″	Brick	9,355.23	
*Hickory st. to Gunn square brook by northerly shore of Watershops pond	4,495	2′-2″x3′-3″	Brick	45,545.71	
					103,673.58

* Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Mill st., Main st., easterly..	236	8″	Cem.	$75.45	
Locust to Pine st.....	943	2′-6″x3′-9″	Brick	4,764.79	
Knox to Maple st.....	352	18″	Clay	668.24	
Dickinson st., easterly...	325	24″	Clay	651.69	
					$6,160.17
Miller st., Armory st., easterly.....	598	20″	Clay		
	304	18″	Clay		
	300	15″	Clay		2,216.18
	236	12″	Clay		
Monmouth st., Dorchester st., northerly and easterly.....	199	12″	Clay	218.15	
	171	10″	Clay	121.75	
Yale st., westerly.....	64	12″	Clay	45.95	
	278	10″	Clay	281.47	
Berkeley st., northwesterly.....	350	12″	Clay	235.62	
					902.94
Monroe st., Hancock st. to Eastern ave.....	611	18″	Cem.		
	789	15″	Cem.		1,983.29
Eastern ave. to Colton st.	316	12″	Cem.		
Monson ave., Greene st., northerly.....	200	8″	Clay		....
Montmorenci st., Chestnut to Massasoit st....	64	12″	Clay	74.82	
	612	2′-10″x4′-5″	Con.	2,725.07	
					2,799.89
Montpelier st., Main to Niagara st.....	297	24″	Clay		1,149.00
Montrose st., State to Burr st.....	338	15″	Clay		
	217	12″	Clay		75.74
	329	10″	Clay		
Moore st., Plainfield st., westerly.....	299	12″	Clay		600.30
	435	10″	Clay		
Mooreland st., Carew st., northerly to Van Horn ave.....	601	18″	Clay		
	301	15″	Clay		
	299	12″	Clay		1,529.16
	212	10″	Clay		
Morgan st., Garden brook to Main st.....	252	12″	Cem.	199.08	
	25	18″	Cem.	48.07	
Garden brook to North st.	634	18″	Clay	1,460.31	
					1,707.46
Morningside Park, White st., easterly.....	392	15″	Clay		503.67

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Morrill ave., Carew st., northerly	214	10″	Clay		$212.00
Morris st., Main st., easterly	915	2′-0″x3′-0″	Brick	$2,942.83	
	496	12″	Cem.	359.07	
					3,301.90
Mountainview st., Forest Park ave., easterly	297	12″	Clay		28.19
	297	10″	Clay		
Mulberry st., Maple st., easterly and northerly	426	15″	Clay	885.41	
	270	12″	Clay		
	629	12″	Cem.	595.59	
	246	10″	Clay	233.59	
west from Ridgewood terrace	144	15″	Clay	....	
					1,714.59
Murray Hill ave., Liberty st., northerly	....	....	Clay		195.06
Myrtle st., Card-factory Pond brook, northerly	107	10″	Clay		69.73
	237	8″	Clay		
Myrtle st., I. O.; Main to Worcester st.	377	24″	Clay	1,003.44	
Worcester st., southerly	378	10″	Clay	355.34	
Berkshire st., southerly	180	10″	Clay	189.63	
Hampshire to Essex st.	434	10″	Clay	425.48	
					1,973.89
Narragansett st., Lexington ave., northerly	320	12″	Clay	657.47	
	219	10″	Clay		
Lexington ave., southerly	250	12″	Clay	458.65	
	251	10″	Clay		
					1,116.12
Nelson ave., Greene st., northerly	310	10″	Clay	421.30	
Lebanon to King st.	188	10″	Cem.	143.78	
	67	10″	Clay	110.87	
					675.95
Nelson st., Nursery st., easterly	308	24″	Clay		....
New st., E. Court st., northerly	237	12″	Cem.	307.75	
	33	8″	Clay	14.18	
Dwight st., westerly	164	10″	Clay	203.79	
					525.72
Newbury st., Carew st. to Sherman ave.	1,070	10″	Clay		1,088.24
Newland st., Plainfield st., westerly	350	18″	Clay		2,018.75
	349	15″	Clay		
	555	12″	Clay		
Newman st., Knox st., westerly	174	12″	Clay		506.69
	127	10″	Clay		

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Niagara st., Montpelier to Saratoga st.	220	18″	Clay	$539.50	
Montpelier to Oswego st.	146	18″	Clay	358.02	
					$897.52
Noble st., North Main to Chestnut st.	514	15″	Clay		1,074.99
Noel ave., Mill st., southerly	204	20″	Clay	569.64	
	146	18″	Clay		
Orange st., northerly	30	12″	Clay	32.29	
					601.93
Norfolk st., Wilbraham rd., southerly	300	15″	Clay	566.08	
	300	12″	Clay		
	229	10″	Clay	155.85	
					721.93
North st., Ferry st., northerly	148	10″	Clay	223.34	
Carew st., northerly	190	8″	Cem.	84.88	
Church to Grosvenor st.	68	18″	Cem.	157.13	
Morgan to Ringgold st.	198	18″	Cem.	356.84	
Osgood to Hebron st.	130	18″	Clay	426.85	
	165	10″	Clay		
Bancroft st. to Brookline ave.	302	18″	Clay	411.55	
Bancroft st., northerly	153	12″	Cem.	217.15	
	64	12″	Clay		
Jefferson ave., northerly	233	8″	Clay	197.21	
Calhoun st., northerly	256	8″	Clay	48.13	
Waverly to Grove st.	362	12″	Clay	302.86	
Harriet st., southerly	86	8″	Clay	....	
Harriet st., northerly	150	10″	Clay	106.43	
					2,532.37
Northampton ave., Wilbraham road, southerly	1,101	12″	Clay	877.47	
Gunn square, northerly	126	10″	Clay	118.79	
Gunn square to King st.	249	12″	Clay	340.32	
	202	10″	Clay		
					1,336.58
North Church ave., Cook's ave., easterly	209	10″	Cem.		
Cook's ave., westerly (for cost see Cook's ave.)	133	10″	Cem.		....
No. Main st., Morgan st., southerly	232	8″	Clay	232.92	
Morgan st., northerly	173	8″	Clay	90.69	
Osgood st., southerly	199	10″	Clay	649.04	
Arch to Osgood st.	730	15″	Cem.	713.66	
*Arch st. to Jefferson ave.	185	2′-2″x3′-3″	Brick	974.27	

* Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Jefferson ave. to Grove st.	359	24″	Clay	$2,568.01	
	420	20″	Clay		
	285	15″	Clay		
Grove st., northerly	170	12″	Clay	226.45	
Douglas to Harriet st.	551	1′-8″x2′-6″	Brick	1,874.35	
Harriet to Waverly st.	250	24″	Clay	470.75	
Douglas to **Eagle st.**	326	2′-4″x3′-6″	Brick	1,840.24	
	272	1′-10″x2′-9″	Brick		
Eagle to Walter st.	296	24″	Clay	952.02	
Wason ave. to Walter st.	215	2′-0″x3′-0″	Brick	860.00	
	349	1′-8″x2′-6″	Con.	1,577.72	
	155	24″	Clay	1,291.96	
	204	15″	Clay		
Wason ave., northerly	600	12″	Clay	462.77	
Chicopee line, southerly	106	15″	Clay	184.06	
	201	15″	Clay	812.39	
	199	12″	Clay		
Norwood st., Main to Hanover st.	1,051	12″	Cem.		$15,781.30 1,156.64
Nursery st., Liberty to Franklin st.	694	2′-8″ cir.	Brick	2,284.52	
Franklin st., northerly	587	2′-8″ cir.	Brick	....	
					2,284.52
Oak st., Union to State st.	741	2′-0″x3′-0″	Con.	3,092.11	
Union to Tyler st.	220	18″	Clay	752.00	
	268	15″	Clay		
Walnut to Tyler st.	177	18″	Clay	339.99	
					4,184.10
Oak st., I. O., Chicopee river to Main st.	684	4′-0″ cir.	Con.	4,404.88	
north from Main st.	179	15″	Cem.	637.00	
	171	12″	Cem.		
Main st., southerly	590	2′-2″x3′-3″	Brick	2,345.84	
brick sewer to Hampshire st.	797	24″	Clay	1,652.79	
Hampshire st., southerly	285	18″	Clay	1,562.43	
	300	15″	Clay		
	400	12″	Clay		
					10,602.94
Oak Grove ave., State to Center st.	349	18″	Clay	....	
	327	15″	Clay		
	254	12″	Clay		
Center st., northerly	621	10″	Clay	294.84	
Bay st., southerly	350	18″	Clay	1,381.91	
	350	15″	Clay		
	301	12″	Clay		
	325	10″	Clay		
					1,676.75
Oak Grove Park, Center st., westerly	144	10″	Clay		157.99

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Oakland st., Belmont ave., southerly	311	10″	Clay	$330.77	
Belmont ave. to Dickinson st	895	24″	Clay	2,249.94	
Dickinson to Orange st.	254	24″	Clay		
	350	18″	Clay	1,619.20	
	170	12″	Clay		
	218	8″	Clay	110.79	
Allen to Orange st	625	18″	Clay		
	304	15″	Clay		
	193	12″	Clay	1,428.06	
	404	10″	Clay		
Sumner ave. to Garfield st	280	12″	Clay	468.60	
	221	10″	Clay		$6,207.36
Olive st., Eastern ave. to Logan st	540	10″	Clay		481.41
Orange st., Bailey square to Euclid ave	1,119	3′-0″ cir.	Con.	6,744.60	
Euclid ave. to Oakland st	697	24″	Clay	1,973.44	
Oakland st., easterly	583	8″	Clay		
White st., westerly	381	12″	Clay	1,240.87	
	649	10″	Clay		
White st., easterly	924	10″	Clay		9,958.91
Orchard st., Plainfield st., westerly	325	20″	Clay		
	301	15″	Clay		1,061.27
	297	12″	Clay		
	494	10″	Clay		
Orlando st., Sumner ave., southerly	127	12″	Clay	310.17	
	240	10″	Clay		
Belmont ave., northerly	246	12″	Clay	396.28	
	193	10″	Clay		706.45
Orleans court, Orleans st., westerly	205	8″	Clay		....
Orleans st., Union st., northerly	39	12″	Cem.	36.23	
	310	12″	Clay	456.19	
	330	10″	Clay		
Tyler st., northerly	188	10″	Cem.	187.74	
Pendleton ave., northerly.	231	12″	Cem.	327.73	
					1,007.89
Ormond st., Belmont to Sumner ave	275	10″	Clay		252.85
***Osborne terrace**, Page blvd. to Bowles park	1,414	10″	Clay		1,373.46
Osgood st., Garden brook to Main st	257	15″	Clay	547.77	
Garden brook to North st.	340	24″	Clay	2,055.99	
	340	20″	Clay		
					2,603.76

* Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Oswego st., Niagara st., easterly	256	15″	Clay		
	259	12″	Clay		$1,309.66
	246	10″	Clay		
Oxford st., Riverview terrace, northerly	63	12″	Clay	....	
	227	12″	Clay	$549.19	
	291	10″	Clay		
					549.19
Ozark st., Grand ave., southerly	456	10″	Clay		61.86
***Page boulevard**, St. James ave. to Edendale st.	4,817	24″	Clay		
	1,830	20″	Clay		22,208.48
Palmer ave., Locust st., easterly	351	18″	Clay		
	337	15″	Clay	1,190.78	
	14	12″	Cem.	....	
					1,190.78
Park st., Main to Willow st.	395	24″	Clay	1,609.31	
Willow to Maple st.	200	24″	Clay	1,431.05	
	557	18″	Clay		
					3,040.36
Parker st., I. O., Chicopee river to Main st.	32	24″	Clay		
	221	12″	Clay	261.81	
Main st., southerly	1,292	24″	Clay	3,284.90	
†Loon pond to B.&A.R.R.	1,227	12″	Clay	1,266.36	
					4,813.07
Parkside ave., Carew st. to Van Horn ave.	350	18″	Clay		
	350	15″	Clay		
	351	12″	Clay		1,198.20
	300	10″	Clay		
Parkwood st., Sumner ave., southerly	215	12″	Clay		
	204	10″	Clay		70.08
Pasadena st., White st., southerly	156	12″	Clay		
	291	10″	Clay	325.65	
Johnson st., northerly	358	10″	Clay	282.96	
Johnson st., southerly	391	10″	Clay	369.66	
					978.27
Pasco road, I. O., Essex st., southerly	724	10″	Clay		607.80
Patton st., Garden brook to Main st.	214	10″	Clay	173.73	
Garden brook, easterly	352	18″	Clay		
	349	15″	Clay	1,572.67	
	537	12″	Clay		
					1,746.40

*Sanitary sewer. †Surface drainage only.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Peabody lane, Willow st., westerly	292	10″	Clay		$332.17
Pearl st., Chestnut to Spring st.	514	24″	Clay	$1,792.62	
	447	20″	Clay		
Spring st., easterly	190	1′-6″ cir.	Brick	96.16	
					1,888.78
Pease st., Catharine to Bowles st.	250	12″	Clay		15.05
Pecousic ave., Mill river to Main st.	352	2′-8″x4′-0″	Con.	2,285.30	
Main st., southerly	549	20″	Clay	1,517.55	
York st., southerly	302	18″	Clay		
	300	15″	Clay	1,972.19	
	228	12″	Clay		
					5,775.04
Penacook ave., Governor to Home st.	106	12″	Clay	76.42	
Wait to Langdon st.	97	15″	Clay	159.48	
					235.90
Pendleton ave., Walnut to Hancock st.	287	18″	Cem.		
	524	15″	Cem.	1,663.94	
	429	12″	Cem.		
Hancock st. to Eastern ave.	600	18″	Cem.		
	793	15″	Cem.	1,494.53	
					3,158.47
Phoenix st., Liberty st., easterly	236	18″	Clay		
	250	15″	Clay		840.32
	89	10″	Clay		
Phoenix terrace, Kendall ave. to Freeman terrace	300	15″	Clay		
	250	12″	Clay	1,102.75	
	251	10″	Clay		
Freeman terrace to Newbury st.	243	12″	Clay	462.05	
	254	10″	Clay		
					1,564.80
Pierce court, Pendleton ave., southerly	166	10″	Clay		324.50
Pine st., Mill to Cedar st.	740	2′- 6″x3′-9″	Brick		
	1,529	3′- 6″x5′-3″	Brick	13,684.58	
	500	3′-10″x5′-9″	Brick		
Cedar to Walnut st.	62	18″	Cem.		
	884	15″	Cem.	1,809.27	
	631	12″	Cem.		
					15,493.85
Pine st., I. O., Main st., easterly	1,896	24″	Clay		4,170.03
Pine st. court, Pine st., easterly	348	10″	Cem.		266.39

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Pineywoods ave., Washington blvd., northeasterly	439	15″	Clay	$497.39	
	263	12″	Clay		
Magnolia terrace, westerly	350	10″	Clay	42.93	
Magnolia terrace to Washington road	343	20″	Clay	....	
	404	15″	Clay		
Washington road to Forest Park ave	341	12″	Clay	....	
					$540.32
Plainfield st., Sargeant to Fulton st	414	18″	Clay	2,525.13	
	537	15″	Clay		
	456	12″	Clay		
	244	10″	Clay		
Washburn to West st	154	12″	Clay	427.50	
	203	10″	Clay		
Washburn to Division st	331	2′-8″x4′-0″	Brick	1,555.00	
	303	2′-6″x3′-9″	Brick	2,367.93	
	287	2′-4″x3′-6″	Brick	4,518.58	
	294	2′-2″x3′-3″	Brick		
	290	24″	Clay	1,036.73	
Rowland to Division st	648	2′-2″x3′-3″	Con.	3,402.82	
	299	24″	Clay	1,419.29	
	208	15″	Clay		
Rowland st. to Talcott ave	288	24″	Clay	1,208.95	
	299	20″	Clay		
Talcott ave., northerly	216	10″	Clay	158.46	
Laurel ave. to Demond ave	228	12″	Clay	391.86	
Wason to Demond ave	304	24″	Clay	1,277.68	
	249	20″	Clay		
	53	18″	Clay		
					20,289.93
Pleasant st., Bay st., southerly	296	12″	Cem.		249.74
Plymouth st., Fulton st., easterly	375	10″	Clay		196.59
Pomona st., Sumner ave., northerly	580	12″	Clay	459.94	
	297	10″	Clay	204.92	
					664.86
***Porter ave.,** St. James ave., westerly	204	10″	Clay		325.87
Portland st., Birnie ave., easterly	251	12″	Clay		351.35
	224	10′	Clay		

*Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Portsmouth st.	212	12″	Clay		$253.65
Pratt st., Chestnut to Marvin st.	350	15″	Clay		869.53
	299	12″	Clay		
Prescott st., Belmont ave., northerly	340	10″	Clay		195.22
Prince st., King to Lebanon st.	329	12″	Cem.		333.15
Princeton st., Bay to Amherst st.	103	18″	Cem.	$289.08	
	689	18″	Clay	724.15	
	151	15″	Clay	177.72	
Yale to Vassar st.	665	12″	Cem.	74.75	
St. James ave. to Cornell st.	298	12″	Cem.	195.52	
					1,461.22
Priscilla st., White st., westerly	220	10″	Clay		185.84
Private ways and private lands:					
Armory Hill sewer from Armory st., through private grounds east of Armory st. to Worthington st.	150	2′-5″x3′-7½″	Brick		5,318.04
	900	2′-8″x4′- 0″	Brick		
	249	2′-1″x3′-1½″	Brick		
Card-factory Pond, Woodworth ave., westerly between High and State sts.	751	12″	Cem.	408.75	
in front and around High school	492	24″	Clay	848.26	
High school to State st.	88	24″	Clay	192.35	
					1,449.36
in front and around High School of Commerce and on private lands easterly	142	15″	Clay		....
	144	12″	Clay		
	226	10″	Clay		
Cemetery brook, Morris st., easterly, north of Central st.	174	24″	Clay		569.59
Chester to Hancock st.	218	8″	Clay		....
Garden brook sewer, north from Liberty st. to B. & M. R. R. via Arch st. about 300 feet east of Main st.	2,936	5′-6″ cir.	Brick	47,594.81	
	766	5′-0″ cir.	Brick		
	1,303	4′-6″ cir.	Brick		
	236	3′-0″x4′-6″	Brick		

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Pineywoods ave., Washington blvd., northeasterly	439	15″	Clay	$497.39	
	263	12″	Clay		
Magnolia terrace, westerly	350	10″	Clay	42.93	
Magnolia terrace to Washington road	343	20″	Clay	....	
	404	15″	Clay		
Washington road to Forest Park ave	341	12″	Clay	....	
					$540.32
Plainfield st., Sargeant to Fulton st	414	18″	Clay	2,525.13	
	537	15″	Clay		
	456	12″	Clay		
	244	10″	Clay		
Washburn to West st	154	12″	Clay	427.50	
	203	10″	Clay		
Washburn to Division st	331	2′-8″x4′-0″	Brick	1,555.00	
	303	2′-6″x3′-9″	Brick	2,367.93	
	287	2′-4″x3′-6″	Brick	4,518.58	
	294	2′-2″x3′-3″	Brick		
	290	24″	Clay	1,036.73	
Rowland to Division st	648	2′-2″x3′-3″	Con.	3,402.82	
	299	24″	Clay	1,419.29	
	208	15″	Clay		
Rowland st. to Talcott ave	288	24″	Clay	1,208.95	
	299	20″	Clay		
Talcott ave., northerly	216	10″	Clay	158.46	
Laurel ave. to Demond ave	228	12″	Clay	391.86	
Wason to Demond ave	304	24″	Clay	1,277.68	
	249	20″	Clay		
	53	18″	Clay		
					20,289.93
Pleasant st., Bay st., southerly	296	12″	Cem.		249.74
Plymouth st., Fulton st., easterly	375	10″	Clay		196.59
Pomona st., Sumner ave., northerly	580	12″	Clay	459.94	
	297	10″	Clay	204.92	
					664.86
***Porter ave.,** St. James ave., westerly	204	10″	Clay		325.87
Portland st., Birnie ave., easterly	251	12″	Clay		351.35
	224	10′	Clay		

*Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Portsmouth st.	212	12″	Clay		$253.65
Pratt st., Chestnut to Marvin st.	350	15″	Clay		869.53
	299	12″	Clay		
Prescott st., Belmont ave., northerly	340	10″	Clay		195.22
Prince st., King to Lebanon st.	329	12″	Cem.		333.15
Princeton st., Bay to Amherst st.	103	18″	Cem.	$289.08	
	689	18″	Clay	724.15	
	151	15″	Clay	177.72	
Yale to Vassar st.	665	12″	Cem.	74.75	
St. James ave. to Cornell st.	298	12″	Cem.	195.52	
					1,461.22
Priscilla st., White st., westerly	220	10″	Clay		185.84
Private ways and private lands:					
Armory Hill sewer from Armory st., through private grounds east of Armory st. to Worthington st.	150	2′-5″x3′-7½″	Brick		5,318.04
	900	2′-8″x4′- 0″	Brick		
	249	2′-1″x3′-1½″	Brick		
Card-factory Pond, Woodworth ave., westerly between High and State sts.	751	12″	Cem.	408.75	
in front and around High school	492	24″	Clay	848.26	
High school to State st.	88	24″	Clay	192.35	
					1,449.36
in front and around High School of Commerce and on private lands easterly	142	15″	Clay		....
	144	12″	Clay		
	226	10″	Clay		
Cemetery brook, Morris st., easterly, north of Central st.	174	24″	Clay		569.59
Chester to Hancock st.	218	8″	Clay		....
Garden brook sewer, north from Liberty st. to B. & M. R. R. via Arch st. about 300 feet east of Main st.	2,936	5′-6″ cir.	Brick	47,594.81	
	766	5′-0″ cir.	Brick		
	1,303	4′-6″ cir.	Brick		
	236	3′-0″x4′-6″	Brick		

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Worthington st., northeasterly to Lyman st., then via Railroad land to Armory st.....	3,274	4'-7¼" cir.	Brick	$29,838.13	
	952	4'-1" cir.	Brick		
					$77,432.94
East Springfield sewer,	1,920	3'-9" cir.	Con.		
northerly and easterly	760	2'-6" cir.	Con.		
from Albany st. through	160	2'-10"x4'-3" Elliptical	Con.		17,567.09
private land to Chicopee road.....					
*Gunn square brook sewer, from Hickory st., through private land to Albemarle st.....	1,585	15"	Clay		1,401.20
Hickory to Melrose st. (see Melrose st.)	....	18"	Clay		....
Jefferson ave., passageway in rear of lots on south side.....	135	2'-0"x3'-0"	Brick	....	
	518	12"	Cem.	364.84	
					364.84
Main to Dale st., between Hubbard ave. and William st.....	655	12"	Cem.		441.92
Passageway, Ferry to Liberty st., 80 ft. east of Main st.....	210	12"	Clay		402.70
Potter place, State st., northerly.....	396	15"	Clay		
	301	12"	Clay		....
	274	10"	Clay		
Sewer in ave. Hampden st. southerly, near Water st.....	111	12"	Clay		147.14
Springfield st. via Atwater	677	3'-6" cir.	Brick		
Glen to Springfield st..	598	3'-3" cir.	Brick		
	389	4'-3" cir.	Brick		14,614.89
	1,292	3'-0" cir.	Brick		
	40	2'-0" cir.	Brick		
	16	2'-10"x4'-3"	Brick		
Prospect st., Chestnut to Massasoit st.....	218	18"	Clay		
	199	15"	Clay	623.53	
	196	12"	Clay		
Massasoit st., easterly...	325	12"	Clay		
	423	10"	Clay	802.39	
					1,425.92

* Sanitary sewer.

Digitized by Google

SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Pulaski alley, I. O., Parker st., easterly	225	12″	Clay		$320.24
Pynchon st.	950	2′-0″x3′-0″	Brick		3,108.02
Quebec st., I. O., Lyons st., easterly	464	15″	Clay		1,326.71
	242	12″	Clay		
Queen st., Walnut to Hancock st.	634	12″	Cem.		758.86
Quincy st., Oak to Stebbins st.	860	12″	Cem.	$651.15	
Hancock to Stebbins st.	522	12″	Cem.	549.58	
Hancock st. to Eastern ave.	637	18″	Cem.	1,766.39	
	765	15″	Cem.		
Colton st. to Eastern ave.	208	10″	Clay	156.87	
					3,123.99
Railroad st., Water st. underpass, easterly	168	12″	Clay		290.55
	208	12″	Clay		
Randolph st., Maplewood terrace, easterly	250	12″	Clay		22.96
	251	10″	Clay		
Ranney st., Wilmont st., southerly	85	10″	Clay	96.04	
Wilmont st., northerly	200	10″	Clay	151.76	
Johnson st., northerly	301	12″	Clay	426.13	
	264	10″	Clay		
Kensington ave., northerly	206	10″	Clay	149.18	
					823.11
Rapalus ave., I. O., Parker st., southerly	442	12″	Clay		448.05
Raymond ave., Carew st., northerly	277	10″	Clay		217.32
Reed st., State st., southerly	219	12″	Clay		244.74
	362	10″	Clay		
Revere st., White st., southerly	750	20″	Clay		
	250	10″	Clay		99.05
	209	8″	Clay		
Richelieu court, Adams st., southerly	160	12″	Clay		602.61
	315	10″	Clay		
Richelieu place, Richelieu court, easterly	100	8″	Clay		....
Ridgewood place, Mulberry st., northerly	400	12″	Clay	29.46	
	76	10″	Clay	101.95	
					131.41

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Ridgewood terrace, Mulberry st., westerly	226	10″	Clay	....	
Union st., southerly	137	10″	Clay	$118.83	$118.83
Rimmon ave., Greene lane to Weaver ramble	859	18″	Clay	....	
Weaver ramble, northerly	200	12″	Clay	....	
Ringgold st., North to Chestnut st	436	15″	Clay		1,226.47
	312	12″	Clay		
Ripley place, St. James ave., southerly	230	10″	Cem.		163.48
Rittenhouse terrace, Sumner ave. to Daviston ave	250	18″	Clay		
	249	15″	Clay		1,074.11
	249	12″	Clay		
	128	10″	Clay		
Riverview st., Riverview terrace to Chase ave	63	10″	Clay	....	
	310	10″	Clay	354.50	
Forest Park ave., southerly	299	10″	Clay	239.39	593.89
Riverview terrace, Fort Pleasant ave., easterly	298	15″	Clay		
	322	12″	Clay		....
	105	10″	Clay		
Rochelle st., Wilbraham road, southerly	424	18″	Clay		
	200	15″	Clay		1,066.86
	260	12″	Clay		
Rogers ave., I. O., Main st., southerly	97	15″	Clay		
	152	12″	Clay		356.39
	40	10″	Clay		
Roseland st., Plainfield st., westerly	350	18″	Clay		
	350	15″	Clay		1,530.97
	241	12″	Clay		
Rowland st., Conn. river to North Main st., including 630′ in Douglas st.	579	5′-3″ cir.	Brick		
	51	1′-8″x2′-6″	Brick		32,489.36
	1,247	6′-6″ cir.	Brick		
	1,330	6′-0″ cir.	Brick		
Rupert st., White st. to Kimberly ave	241	18″	Clay		614.13
	152	15″	Clay		
Ruskin st., Eleanor road, southerly	231	12″	Clay		397.51
	233	10″	Clay		
Rutland st., Wilbraham road to State st	199	8″	Clay		147.15
Rutledge ave., Main st., easterly	574	24″	Clay		49.43

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Sachem st., Dickinson st., northerly	330	10″	Clay	$368.85	
Orange st., southerly	30	12″	Clay	35.31	
					$404.16
Sackett place, southerly of Worthington st	128	12″	Clay		186.80
Salem st., Pearl st., south	283	18″	Cem.		
and east	99	15″	Cem.		879.36
	290	12″	Cem.		
***Sanford st.**	536	3′-2″x4′-9″	Brick		4,014.47
Saratoga st., Niagara to	233	15″	Clay		
Richelieu st	229	12″	Clay	1,023.97	
	129	10″	Clay		
Niagara to Main st	172	12″	Clay	268.01	
					1,291.98
***Sargeant st.**, Fulton to Main (cost shown under Clinton st.)	920	4′-6″x6′-9″	Brick		....
School st., Union to Mulberry st	560	15″	Clay	620.95	
Union st., northerly	258	10″	Clay	286.32	
					907.27
Scott st., White to Pomona	300	12″	Clay		
st	347	10″	Clay		468.68
Searle place, Walnut st., easterly	178	10″	Clay		231.61
Seventh st., Fulton to Main st	830	12″	Cem.		700.00
Sewer in avenue (see private way).					
Sewer (see private ways).					
Shamrock ave., Orange st., northerly	30	12″	Clay		26.58
Sharon st., Garden brook	209	15″	Clay		
to Main st	151	12″	Clay	945.67	
Garden brook, easterly	301	20″	Clay		
	300	18″	Clay		
	231	15″	Clay	2,355.50	
	232	12″	Clay		
					3,301.17
Shattuck st., Maynard st.	200	10″	Clay		
to Willard ave	143	8″	Clay	....	
Willard ave., easterly	210	8″	Clay	75.40	
					75.40
Sheffield st., Shillingford st., northerly	209	10″	Clay		234.97

*Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Shefford st., Glenwood sewer southerly towards	293	12″	Clay	$628.75	
Springfield st.	350	10″	Clay		
easterly towards Springfield st.	200	12″	Clay	790.42	
	225	10″	Clay		
*Springfield st., easterly.	75	3′-2″x4′-9″	Con.	1,013.45	
Caseland ave., northerly.	30	10″	Clay	26.83	
					$2,459.45
Sheldon st., Birnie ave. to	311	12″	Clay		18.49
N. Main st.	317	10″	Clay		
Sherman ave., Kendall ave. to Newbury st.	550	15″	Clay		1,614.89
	550	12″	Clay		
	280	10″	Clay		
Sherman st., Bay to Clarendon st	175	12″	Cem.	571.12	
Bay to McKnight st.	443	12″	Cem.		
State to McKnight st.	301	18″	Clay		
	301	15″	Clay	1,314.14	
	544	12″	Clay		
					1,885.26
Shillingford st., Eastern ave. to Sheffield st.	640	12″	Clay		464.74
Silver st., Armory st., easterly	302	15″	Clay		733.99
	297	12″	Clay		
	251	10″	Clay		
Smith st., Knox to Dorne st.	199	12″	Clay	196.57	
Dorne st., westerly	107	10″	Clay	136.68	
					333.25
Somerset st., Dickinson st., westerly	317	15″	Clay		1,220.56
	305	12″	Clay		
	420	10″	Clay		
Sorrento st., Sumner ave., northerly	325	12″	Clay	271.15	
Grenada terrace, northerly	367	10″	Clay	252.09	
					523.24
Spencer st., Sumner ave., southerly	282	12″	Clay		487.45
	315	10″	Clay		
Spring st., south from Lyman st.	281	15″	Cem.		
	130	12″	Cem.		
Worthington to State st.	470	18″	Cem.	2,592.14	
	640	15″	Cem.		
	644	12″	Cem.		
Worthington st., northerly	132	12″	Clay	87.28	
Worthington to Summer st.	183	5′-0″ cir.	Brick	1,498.24	
	†49	4′-3″x6′-0″	Brick		
					4,177.66

* Elliptical. † Segmental.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost.	
Springfield st., Atwater	892	20″	Clay		
terrace, to northerly end	360	18″	Clay		
of Shefford st.....	413	15″	Clay	$3,475.64	
	286	12″	Clay		
	437	10″	Clay		
*Glenwood sewer southerly to Shefford st.....	135	3′-2″x4′-9″	Con.	1,824.12	
Glenwood sewer northerly to Hamburg st.....	1,294	24″	Clay	3,889.98	
Springfield st. and Glenwood (see private ways)					$9,189.74
Spruce st., Central st., northerly.....	600	12″	Cem.		609.90
Spruceland ave., Firglade ave., westerly.....	158	10″	Clay	268.87	
Magnolia terrace, westerly	67	8″	Clay	....	
Beechwood ave., easterly.	242	8″	Clay	136.48	
Beechwood ave., westerly.	299	8″	Clay	94.83	
Longhill st., easterly.....	450	10″	Clay	410.40	
					910.58
Stafford st., Armory st., westerly.....	402	10″	Clay		367.88
State st., Water st., westerly.....	70	12″	Cem.	45.27	
	91	12″	Cem.	71.19	
	82	12″	Clay	83.01	
Water to Main st.....	907	18″	Cem.	1,199.78	
Main to Dwight st.....	636	18″	Cem.	1,433.50	
*Dwight st. to High school	29	2′-8″x4′-0″	Brick		
	265	2′-2″x3′-3″	Brick	4,897.66	
	417	2′-0″x3′-0″	Brick		
At High school, connecting old with new	54	24″	Clay	161.88	
High school to Elliott st..	305	2′-0″ cir.	Brick	469.65	
High school to Walnut st.	726	2′-0″x3′-0″	Con.		
	306	2′-2″ cir.	Con.		
	1,440	2′-0″ cir.	Con.	6,442.79	
connecting new with old..	54	18″	Clay		
Walnut to Oak st.....	250	18″	Clay		
	253	15″	Clay	1,678.37	
	348	12″	Clay		
Federal st., easterly.....	695	2′-0″ cir.	Brick	1,062.40	
	130	12″	Clay	274.35	
Oak to Buckingham st...	2,110	18″	Cem.	2,848.93	
Hancock to Sherman st...	1,147	3′-4″x5′-0″	Brick		
Sherman to Mason st....	492	3′-0″x4′-6″	Brick	13,586.64	
Mason to Andrew st.....	726	3′-0″x4′-6″	Brick		
Andrew st. to Oak Grove ave.....	937	2′-10″x4′-3″	Brick	10,818.12	

* Elliptical.

Digitized by Google

SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Shefford st., Glenwood sewer southerly towards	293	12″	Clay		
Springfield st.	350	10″	Clay	$628.75	
easterly towards Springfield st.	200	12″	Clay		
	225	10″	Clay	790.42	
*Springfield st., easterly.	75	3′-2″x4′-9″	Con.	1,013.45	
Caseland ave., northerly.	30	10″	Clay	26.83	
					$2,459.45
Sheldon st., Birnie ave. to	311	12″	Clay		
N. Main st.	317	10″	Clay		18.49
Sherman ave., Kendall	550	15″	Clay		
ave. to Newbury st.	550	12″	Clay		1,614.89
	280	10″	Clay		
Sherman st., Bay to Clarendon st	175	12″	Cem.		
Bay to McKnight st.	443	12″	Cem.	571.12	
State to McKnight st.	301	18″	Clay		
	301	15″	Clay	1,314.14	
	544	12″	Clay		
					1,885.26
Shillingford st., Eastern ave. to Sheffield st.	640	12″	Clay		464.74
Silver st., Armory st., easterly	302	15″	Clay		
	297	12″	Clay		733.99
	251	10″	Clay		
Smith st., Knox to Dorne st.	199	12″	Clay	196.57	
Dorne st., westerly	107	10″	Clay	136.68	
					333.25
Somerset st., Dickinson	317	15″	Clay		
st., westerly	305	12″	Clay		1,220.56
	420	10″	Clay		
Sorrento st., Sumner ave., northerly	325	12″	Clay	271.15	
Grenada terrace, northerly	367	10″	Clay	252.09	
					523.24
Spencer st., Sumner ave., southerly	282	12″	Clay		
	315	10″	Clay		487.45
Spring st., south from Lyman st.	281	15″	Cem.		
	130	12″	Cem.		
Worthington to State st.	470	18″	Cem.	2,592.14	
	640	15″	Cem.		
	644	12″	Cem.		
Worthington st., northerly	132	12″	Clay	87.28	
Worthington to Summer st.	183	5′-0″ cir.	Brick	1,498.24	
	†49	4′-3″x6′-0″	Brick		
					4,177.66

* Elliptical. † Segmental.

Digitized by Google

SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost.	
Springfield st., Atwater	892	20″	Clay		
terrace, to northerly end	360	18″	Clay		
of Shefford st.....	413	15″	Clay	$3,475.64	
	286	12″	Clay		
	437	10″	Clay		
*Glenwood sewer southerly to Shefford st.....	135	3′-2″x4′-9″	Con.	1,824.12	
Glenwood sewer northerly to Hamburg st.....	1,294	24″	Clay	3,889.98	
Springfield st. and Glenwood (see private ways)					$9,189.74
Spruce st., Central st., northerly.....	600	12″	Cem.		609.90
Spruceland ave., Firglade ave., westerly.....	158	10″	Clay	268.87	
Magnolia terrace, westerly	67	8″	Clay	....	
Beechwood ave., easterly.	242	8″	Clay	136.48	
Beechwood ave., westerly.	299	8″	Clay	94.83	
Longhill st., easterly.....	450	10″	Clay	410.40	
					910.58
Stafford st., Armory st., westerly.....	402	10″	Clay		367.88
State st., Water st., westerly.....	70	12″	Cem.	45.27	
	91	12″	Cem.	71.19	
	82	12″	Clay	83.01	
Water to Main st.....	907	18″	Cem.	1,199.78	
Main to Dwight st.....	636	18″	Cem.	1,433.50	
*Dwight st. to High school	29	2′-8″x4′-0″	Brick		
	265	2′-2″x3′-3″	Brick	4,897.66	
	417	2′-0″x3′-0″	Brick		
At High school, connecting old with new	54	24″	Clay	161.88	
High school to Elliott st..	305	2′-0″ cir.	Brick	469.65	
High school to Walnut st.	726	2′-0″x3′-0″	Con.		
	306	2′-2″ cir.	Con.		
	1,440	2′-0″ cir.	Con.	6,442.79	
connecting new with old..	54	18″	Clay		
Walnut to Oak st.....	250	18″	Clay		
	253	15″	Clay	1,678.37	
	348	12″	Clay		
Federal st., easterly.....	695	2′-0″ cir.	Brick	1,062.40	
	130	12″	Clay	274.35	
Oak to Buckingham st. ..	2,110	18″	Cem.	2,848.93	
Hancock to Sherman st...	1,147	3′-4″x5′-0″	Brick	13,586.64	
Sherman to Mason st....	492	3′-0″x4′-6″	Brick		
Mason to Andrew st.....	726	3′-0″x4′-6″	Brick		
Andrew st. to Oak Grove ave.....	937	2′-10″x4′-3″	Brick	10,818.12	

* Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
east from Oak Grove ave. to Cortland st.	548	2′-4″x3′-6″	Brick		
	283	2′-2″x3′-3″	Brick	$5,056.93	
	352	2′-0″x3′-0 ′	Brick		
Cortland st., easterly	355	24″	Clay		
	112	18″	Clay	4,616.11	
	3,399	12″	Clay		
					$54,746.58
Stearns square (West roadway), Bridge st., northerly	172	12″	Clay	205.83	
Worthington st., southerly	201	12″	Clay	523.75	
					729.58
Stearns square (East roadway), Bridge st., northerly	167	8″	Clay	67.00	
Worthington st., southerly	148	12″	Clay	342.98	
					409 98
Stebbins st., Union to State st.	300	12″	Clay	596.89	
	293	10″	Clay		
Union st., southerly	151	10″	Clay	196.80	
					793.69
Sterns terrace, Central st., northerly	393	12″	Clay		605 10
*Stevens st., Page boulevard to Eureka st.	1,164	10″	Clay		1,248.43
St. James ave., State st., northerly	191	18″	Clay		
	467	12″	Clay	906.01	
	123	10″	Clay		
Bay st. to Ripley place	91	12″	Cem.	135.23	
Florida st. to Ripley place	469	12″	Cem.	500.89	
Florida st., northerly	417	18″	Cem.	1,073.90	
	300	12″	Cem.		
Clarendon to Westminster st.	248	15″	Cem.	404.60	
Clarendon st., northerly	138	8″	Clay	64.82	
Dartmouth to Harvard st.	385	2′-0″x3′-0″	Brick	2,738.53	
Harvard to Princeton st.	528	24″	Clay	1,587.44	
Princeton st., northerly	308	18″	Clay		
	249	15″	Clay	965.55	
	57	12″	Clay		
Chicopee road to Page boulevard	127	24″	Clay	396.52	
*Page boulevard to Porter ave.	315	18″	Clay	790.13	
					9,563.62
Stockbridge st., Main st., easterly	777	18″	Cem.		1,101.77

* Sanitary sewer.

Digitized by Google

SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Stockman st., Carew st. to	879	20″	Clay		
Newbury st	260	12″	Clay		$2,757.87
	256	10″	Clay		
Stratford terrace, White	190	12″	Clay		
st., easterly	314	10″	Clay		562.32
Suffolk st., Wilbraham					
road, southerly	300	15″	Clay	$294.06	
	300	12″	Clay		
	795	10″	Clay	596.52	
					890.58
Sullivan st., Armory st.,					
easterly	395	12″	Clay		64.10
***Summer st.**, Spring to					
Armory st	44	4′-3″x6′-0″	Brick		
	†1,344	4′-2″x6′-3″	Brick		
	†1,093	2′-10″x4′-3″	Brick		24,048.88
	†750	3′- 8″x5′-6″	Brick		
Summit st., Worthington					
to Federal st	204	12″	Clay		
	263	10″	Clay		744.48
Sumner ave., Fort Pleas-	448	12″	Clay		
ant ave. to Longhill st	358	10″	Clay	815.24	
Fort Pleasant ave. to Ran-					
dolph st	673	2′- 0″x3′-0″	Brick		
Randolph st. to Washing-					
ton road	360	1′-10″x2′-9′	Brick		
Washington road to Forest				7,968.46	
Park ave	360	1′- 8″x2′-6″	Brick		
Forest Park ave. to Green-					
leaf st	367	1′- 6″x2′-3″	Brick		
Greenleaf st. to Belmont	355	20″	Clay		
ave	851	18″	Clay		
	736	15″	Clay	2,915.88	
	272	12″	Clay		
	426	10″	Clay		
Belmont ave., easterly	100	8″	Clay	37.49	
†Dickinson to White st	2,219	2′-8″x4′-0″	Brick	11,531.37	
White st. to Castle ave	565	2′-2″x3′-3″	Brick	2,391 46	
	1,110	2′-2″x3′-3″	Con.	2,355.03	
	739	15″	Clay		
	879	12″	Clay	1,645.60	
					29,660.53
Sumner terrace, Sumner	252	12″	Clay		
ave., northerly	220	10″	Clay		462.38
Sunapee st., White st.					
to Blaine st	376	15″	Clay		
	297	12″	Clay		1,175.06
	337	10″	Clay		

* Segmental. † Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
*Sycamore st., Acorn to Bay st.	899	8″	Clay		$352.24
Sylvan ave., Belmont ave. to Fountain place	294	20″	Clay		1,272.55
	251	18″	Clay		
	249	15″	Clay		
Symonds ave., Worthington to Bridge st. (includes cost of Bond pl.)	300	15″	Cem.		696.89
Taft ave., Sylvan to Woodlawn st.	247	10″	Clay		201.65
Talcott ave., Fisk ave. to Plainfield st.	362	15″	Clay		549.57
	316	12″	Clay		
	330	20″	Clay		
Taylor st., Main to Chestnut st.	321	18″	Clay	$3,747.24	
	197	15″	Clay		
	50	12″	Clay	51.79	
	341	12″	Cem.	463.50	
					4,262.53
Temple st., Maple to School st.	304	15″	Clay		
	300	12″	Clay	1,127.60	
	345	10″	Clay		
outlet into High school sewer	169	15″	Clay	171.71	
					1,299.31
Tenth st., Garden brook, easterly	300	18″	Clay		
	302	15″	Clay		1,293.88
	421	12″	Clay		
	4	8″	Clay		
Terrence st., Union to State st.	374	12″	Clay	565.26	
	313	10″	Clay		
	48	10″	Cem.	34.02	
					599.28
Thomas st., Birnie ave., easterly	451	10″	Clay		364.91
Thompson st., Worthington st., southerly	603	12″	Cem.	638.27	
St. James ave. to Bay st.	703	15″	Cem.	749.22	
State to Bay st.	852	12″	Cem.	757.02	
					2,144.51
Thorndyke st., Sumner ave., southerly	353	12″	Clay		975.10
	398	10″	Clay		
Tracy st., Franklin st., southerly	14	10″	Clay	15.48	
	367	10″	Clay	222.88	
					238.36
Trafton road, Dickinson st., westerly	351	18″	Clay		923.68
	460	15″	Clay		
	140	12″	Clay		

*Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Trenton st., Dickinson st. to Commonwealth ave.	146	10″	Clay		$125.74
Trillium st., White to Greenbrier st.	345	10″	Clay		234.62
Trinity terrace, Sumner ave. to Morningside park	300	12″	Clay		533.91
	416	10″	Clay		
Tyler st., Oak to Orleans	419	15″	Clay	$769.02	
Orleans to Hancock st.	298	15″	Clay	653.33	
	171	12″	Clay		
	492	12″	Clay	571.84	
Hancock st. to Eastern ave.	601	18″	Cem.	815.47	
	795	15″	Cem.	718.71	
Eastern ave., easterly	251	10″	Cem.	199.75	
					3,728.12
Underwood st., Franklin st., northerly	483	10″	Clay		567.41
Union st., submerged outlet	165	24″	Wood	1,604.45	
	48	24″	C. Iron	391.23	
Conn. river to Main st.	1,610	3′-4″x5′-0″	Brick	8,806.18	
	53	2′-0″x3′-0″	Brick		
Main to Oak st.	*718	3′-2″x4′-9″	Con.	13,447.59	
	951	2′-8″ cir.	Con.		
	1,021	2′-3″ cir.	Con.		
	1,504	2′-4″x3′-6″	Con.	7,638.58	
Oak to Orleans st.	404	15″	Cem.	467.96	
Hancock to Stebbins st.	261	2′-0″x3′-0″	Brick	2,307.33	
	335	1′-10″x2′-9″	Brick		
Stebbins to Orleans st.	428	20″	Clay	788.30	
Hancock st. to Eastern ave.	600	18″	Cem.	1,535.40	
	800	15″	Cem.		
Eastern ave., easterly	248	10″	Clay	182.22	
					37,169.24
Van Horn place, Carew st., northerly	162	10″	Clay		227.68
Vassar st., Harvard st., northerly	550	12″	Cem.		153.37
Ventura st., Sumner ave., northerly	351	10″	Clay	289.51	
Grenada terrace, northerly	341	10″	Clay	254.12	
					543.63
Vermont st., Converse to Pomona st.	258	15″	Clay	524.78	
	267	12″	Clay		
	225	10″	Clay		
Converse st., easterly	314	12″	Clay	272.05	
					796.83
Vernon st., Water st., easterly	589	15″	Cem.	772.37	
Main st., westerly	216	12″	Cem.	310.68	
	50	12″	Clay	328.78	
					1,411.83

* Elliptical.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Villa parkway, Wilbraham road, southerly	299	15″	Clay		$785.41
	302	12″	Clay		
Vine st., Main to Fulton st.	697	12″	Cem.		688.75
Vinton st., Liberty to Franklin st.	357	12″	Clay	$393.47	
	262	10″	Clay	252.13	
					645.60
Virginia st., Dickinson st. to Trafton road	348	15″	Clay		731.12
	301	12″	Clay		
	344	10″	Clay		
Wait st., Armory st. to Penacook ave	500	24″	Clay		2,066.01
	470	20″	Clay		
	250	18″	Clay		
	249	15″	Clay		
Walden st., Dickinson st., easterly	166	8″	Clay	94.93	
Commonwealth to Belmont ave.	296	10″	Clay	168.26	
					263.19
Walker st., Water st., westerly	650	12″	Clay		688.37
Walnut court, Walnut st., westerly	211	10″	Clay		188.15
Walnut st., south from State st.	69	1′-6″x1′-8″	Brick	85.23	
north from Charter ave.	292	10″	Clay	418.30	
Union st. to Charter ave.	279	12″	Cem.	482.50	
Union to Oak st.	558	12″	Clay	792.64	
	17	12″	Cem.	20.50	
Cedar to Pine st.	1,142	2′-0″x3′-0″	Brick	4,986.58	
Pine to Oak st.	254	18″	Cem.	383.04	
Hancock to Cedar st.	784	15″	Cem.	1,289.38	
Hancock st., southerly	180	12″	Cem.		
north from Manhattan st.	249	10″	Clay	238.06	
Florence st., northerly	53	8″	Cem.	27.12	
Hickory to Florence st.	1,026	12″	Clay	1,006.69	
					9,730.04
Walter st., Birnie ave. to North Main st.	385	12″	Clay		422.74
Waltham ave., Wilbraham road, southerly	911	12″	Clay		953.07
Wareham st., Grand ave., southerly	419	10″	Clay		21.24
Warner st., Fort Pleasant ave. to Longhill st.	508	12′	Clay		
	198	10″	Clay	....	
	89	10″	Clay	51.88	
					51.88

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Warriner ave., Locust st., easterly	448	12″	Clay		$463.97
Washburn st., Conn. river to B. & M. R. R.	1,758	7′-0″ cir.	Brick		21,678.46
Washington boulevard, Longhill st. to Pineywoods ave.	304	2′-4″x3′-6″	Brick	$5,032.68	
	823	2′-2″x3′-3″	Brick		
	308	18″	Clay		
	200	15″	Clay	868.79	
	242	12″	Clay		
	330	10″	Clay		
					5,901.47
Washington road, Sumner ave., southerly	422	10″	Clay	56.78	
	38	8″	Clay		
Pineywoods ave., northerly	141	10″	Clay	149.77	
	281	10″	Clay	....	
					206.55
Washington st., Dickinson st. to Commonwealth ave.	306	12″	Clay	531.14	
	215	10″	Clay		
Itendale to Woodlawn st.	259	12″	Clay	363.85	
	208	10″	Clay		
					894.99
Wason ave., Conn. river to Plainfield st.	451	3′-10″x5′-9″	Brick		
Plainfield st. to Fisk ave.	1,051	3′- 4″x5′-0″	Brick		
Fisk to Birnie ave.	631	3′- 2″x4′-9″	Brick		16,642.62
Birnie ave. to North Main st.	247	2′- 0″x3′-0″	Brick		
Water st., Gardner to Loring st.	474	1′-10″x2′-9″	Brick	1,219.79	
Loring st., northerly	345	12″	Cem.	237.38	
Union to Margaret st.	721	2′- 0″x3′-0″	Brick	2,367.61	
Union st., northerly	868	18″	Cem.		
Elm to State st.	275	18″	Cem.	508.75	
Elm to Pynchon st.	43	2′- 0″x3′-0″	Brick	198.00	
	498	2′- 6″x3′-6″	Brick	2,949.29	
Pynchon st., northerly	257	18″	Cem.	404.44	
	329	15″	Cem.	460.60	
	61	12″	Cem.	132.69	
Worthington st., southerly	209	10″	Clay	333.54	
Worthington to Hampden st.	327	15″	Cem.	511.50	
Hampden to Railroad st.	250	12″	Clay	497.29	
					9,820.88
Water st. underpass, Cypress to Railroad st.	359	18″	Clay		....
	236	15″	Clay		....

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Waverly st., North Main to Chestnut st.	473	20″	Clay		$1,268.03
	487	10″	Clay		
Weaver ramble, Rimmon ave., westerly and northerly.	480	12″	Clay		....
Webster st., Liberty to Franklin st.	601	12″	Clay		505.99
Welcome place, Bay st., northerly.	238	8″	Clay		17.84
Wellesley st., St. James ave. to Cornell st.	236	12″	Clay		540.30
	224	10″	Clay		
Wellington st., Wilbraham road, southerly.	287	15″	Clay		46.33
	244	12″	Clay		
	291	10″	Clay		
Wendell ave., Main st., easterly.	458	15″	Clay		....
***West st.**, Connecticut river to Plainfield st.	635	15″	Clay		1,828.55
	511	12″	Clay		
West Alvord st., Sumner ave. to Daviston ave.	153	24″	Clay		
	268	20″	Clay		
	550	18″	Clay		1,546.17
	300	15″	Clay		
	412	12″	Clay		
Westernview st., Forest Park ave., easterly.	468	12″	Clay		539.60
	138	10″	Clay		
Westford ave., Wilbraham road, southerly.	300	15″	Clay		
	300	12″	Clay	$676.23	
	350	10″	Clay		
†Westford circle to King st.	541	12″	Clay	454.36	1,130.59
†Westford circle, Albemarle st. to Westford ave.	786	12″	Clay		1,457.52
Westminster st., Bay to State st.	300	15″	Clay		
	300	12″	Clay	705.11	
	201	10″	Clay		
St. James ave., southerly.	773	12″	Cem.	794.10	1,499.21

* Stormwater. † Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
White st., Allen to Orange st.	747	24″	Clay	$1,829.93	
	674	20″	Clay	1,729.93	
	274	18″	Clay		
Orange st. to Dawson ave.	388	15″	Clay	389.27	
	292	15″	Clay	300.87	
Gordon st. to Dawson ave.	192	10″	Clay	237.91	
Gordon st., southerly	690	12″	Clay	746.74	
	207	8″	Clay	84.45	
Sumner ave. to Stratford ter.	1,266	24″	Clay	2,104.72	
Sumner ave. to Trillium st.	1,028	20″	Clay	2,300.75	
	166	18″	Clay		
	329	12″	Clay		
Belmont ave. to Trillium st.	233	24″	Clay	1,189.60	
	191	12″	Clay		
	210	10″	Clay		
Belmont ave. to Dwight road	1,178	2′-8″x4′-0″	Con.	5,098.59	
Dwight road to Longmeadow line	179	24″	Clay	550.34	
					$16,563.10
Whiting st., Plainfield st., westerly	299	18″	Clay		834.16
	297	15″	Clay		
	196	12″	Clay		
Whitney ave., Water st., westerly	450	12″	Cem.		326.94
Whittier st., Sumner ave. to Longfellow terrace	301	18″	Clay		1,290.11
	299	15″	Clay		
	301	12″	Clay		
	221	10″	Clay		
Wight place, Water st., easterly	175	10″	Clay		240.47
Wigwam place, Dickinson st., easterly	324	10″	Clay		427.63
Wilbraham ave., Wilbraham road, southerly	1,125	12″	Clay	1,020.78	
Alden to Beverly st.	999	10″	Clay	1,253.01	
	1,180	8″	Clay		
					2,273.79

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Waverly st., North Main to Chestnut st.	473	20″	Clay		$1,268.03
	487	10″	Clay		
Weaver ramble, Rimmon ave., westerly and northerly.	480	12″	Clay		....
Webster st., Liberty to Franklin st.	601	12″	Clay		505.99
Welcome place, Bay st., northerly.	238	8″	Clay		17.84
Wellesley st., St. James ave. to Cornell st.	236	12″	Clay		540.30
	224	10″	Clay		
Wellington st., Wilbraham road, southerly.	287	15″	Clay		46.33
	244	12″	Clay		
	291	10″	Clay		
Wendell ave., Main st., easterly.	458	15″	Clay		....
*West st., Connecticut river to Plainfield st.	635	15″	Clay		1,828.55
	511	12″	Clay		
West Alvord st., Sumner ave. to Daviston ave.	153	24″	Clay		
	268	20″	Clay		
	550	18″	Clay		1,546.17
	300	15″	Clay		
	412	12″	Clay		
Westernview st., Forest Park ave., easterly.	468	12″	Clay		539.60
	138	10″	Clay		
Westford ave., Wilbraham road, southerly.	300	15″	Clay		
	300	12″	Clay	$676.23	
	350	10″	Clay		
†Westford circle to King st.	541	12″	Clay	454.36	1,130.59
†**Westford circle**, Albemarle st. to Westford ave.	786	12″	Clay		1,457.52
Westminster st., Bay to State st.	300	15″	Clay		
	300	12″	Clay	705.11	
	201	10″	Clay		
St. James ave., southerly.	773	12″	Cem.	794.10	1,499.21

*Stormwater. †Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
White st., Allen to Orange st.	747	24″	Clay	$1,829.93	
	674	20″	Clay	1,729.93	
	274	18″	Clay		
Orange st. to Dawson ave.	388	15″	Clay	389.27	
	292	15″	Clay	300.87	
Gordon st. to Dawson ave.	192	10″	Clay	237.91	
Gordon st., southerly	690	12″	Clay	746.74	
	207	8″	Clay	84.45	
Sumner ave. to Stratford ter.	1,266	24″	Clay	2,104.72	
Sumner ave. to Trillium st.	1,028	20″	Clay		
	166	18″	Clay	2,300.75	
	329	12″	Clay		
Belmont ave. to Trillium st.	233	24″	Clay		
	191	12″	Clay	1,189.60	
	210	10″	Clay		
Belmont ave. to Dwight road	1,178	2′-8″x4′-0″	Con.	5,098.59	
Dwight road to Longmeadow line	179	24″	Clay	550.34	
					$16,563.10
Whiting st., Plainfield st., westerly	299	18″	Clay		
	297	15″	Clay		834.16
	196	12″	Clay		
Whitney ave., Water st., westerly	450	12″	Cem.		326.94
Whittier st., Sumner ave. to Longfellow terrace	301	18″	Clay		
	299	15″	Clay		1,290.11
	301	12″	Clay		
	221	10″	Clay		
Wight place, Water st., easterly	175	10″	Clay		240.47
Wigwam place, Dickinson st., easterly	324	10″	Clay		427.63
Wilbraham ave., Wilbraham road, southerly	1,125	12″	Clay	1,020.78	
Alden to Beverly st.	999	10″	Clay	1,253.01	
	1,180	8″	Clay		
					2,273.79

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Waverly st., North Main to Chestnut st.	473	20″	Clay		$1,268.03
	487	10″	Clay		
Weaver ramble, Rimmon ave., westerly and northerly	480	12″	Clay		....
Webster st., Liberty to Franklin st.	601	12″	Clay		505.99
Welcome place, Bay st., northerly	238	8″	Clay		17.84
Wellesley st., St. James ave. to Cornell st.	236	12″	Clay		540.30
	224	10″	Clay		
Wellington st., Wilbraham road, southerly	287	15″	Clay		46.33
	244	12″	Clay		
	291	10″	Clay		
Wendell ave., Main st., easterly	458	15″	Clay		....
***West st.**, Connecticut river to Plainfield st.	635	15″	Clay		1,828.55
	511	12″	Clay		
West Alvord st., Sumner ave. to Daviston ave.	153	24″	Clay		1,546.17
	268	20″	Clay		
	550	18″	Clay		
	300	15″	Clay		
	412	12″	Clay		
Westernview st., Forest Park ave., easterly	468	12″	Clay		539.60
	138	10″	Clay		
Westford ave., Wilbraham road, southerly	300	15″	Clay		
	300	12″	Clay	$676.23	
	350	10″	Clay		
†Westford circle to King st.	541	12″	Clay	454.36	1,130.59
†Westford circle, Albemarle st. to Westford ave.	786	12″	Clay		1,457.52
Westminster st., Bay to State st.	300	15″	Clay		
	300	12″	Clay	705.11	
	201	10″	Clay		
St. James ave., southerly.	773	12″	Cem.	794.10	1,499.21

*Stormwater. †Sanitary sewer.

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SEWER SYSTEM.—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
White st., Allen to Orange st.	747	24″	Clay	$1,829.93	
	674	20″	Clay	1,729.93	
	274	18″	Clay		
Orange st. to Dawson ave.	388	15″	Clay	389.27	
	292	15″	Clay	300.87	
Gordon st. to Dawson ave.	192	10″	Clay	237.91	
Gordon st., southerly	690	12″	Clay	746.74	
	207	8″	Clay	84.45	
Sumner ave. to Stratford ter.	1,266	24″	Clay	2,104.72	
Sumner ave. to Trillium st.	1,028	20″	Clay		
	166	18″	Clay	2,300.75	
	329	12″	Clay		
Belmont ave. to Trillium st.	233	24″	Clay		
	191	12″	Clay	1,189.60	
	210	10″	Clay		
Belmont ave. to Dwight road	1,178	2′-8″x4′-0″	Con.	5,098.59	
Dwight road to Longmeadow line	179	24″	Clay	550.34	
					$16,563.10
Whiting st., Plainfield st., westerly	299	18″	Clay		
	297	15″	Clay		834.16
	196	12″	Clay		
Whitney ave., Water st., westerly	450	12″	Cem.		326.94
Whittier st., Sumner ave. to Longfellow terrace	301	18″	Clay		
	299	15″	Clay		1,290.11
	301	12″	Clay		
	221	10″	Clay		
Wight place, Water st., easterly	175	10″	Clay		240.47
Wigwam place, Dickinson st., easterly	324	10″	Clay		427.63
Wilbraham ave., Wilbraham road, southerly	1,125	12″	Clay	1,020.78	
Alden to Beverly st.	999	10″	Clay	1,253.01	
	1,180	8″	Clay		
					2,273.79

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SEWER SYSTEM:—*Continued.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Wilbraham road, State st., easterly	248	12″	Cem.	$157.79	
State st. to Northampton ave.	1,451	2′-0″x3′-0″	Brick	6,373.06	
Northampton ave. to Bristol st.	472	2′-6″x3′-9″	Brick		
	476	2′-4″x3′-6″	Brick		
	478	2′-2″x3′-3″	Brick	9,055.82	
	473	2′-0″x3′-0″	Brick		
	254	1′-10″x2′-9″	Brick		
	256	1′-8″x2′-6″	Brick		
Bristol st., easterly	263	20″	Clay		
	405	12″	Clay	947.00	
*Watershop Pond, westerly	204	24″	Clay		
	318	20″	Clay	836.60	
					$17,370.27
Wilcox st., Water st., easterly	548	15″	Cem.		
	327	12″	Cem.	1,000.75	
Water st., westerly	463	12″	Cem.	313.82	
					1,314.57
Willard ave., State st., northerly	282	18″	Clay		
	300	15″	Clay	785.26	
	241	12″	Clay		
Shattuck ave., southerly	215	8″	Clay	....	
					785.26
William st., Water to Main st.	875	12″	Cem.	918.26	
	32	12″	Clay	125.28	
Main to Dale st.	351	12″	Clay		
	311	10″	Clay	931.32	
Water st., westerly	76	15″	Cem.		
	425	12″	Cem.	459.79	
					2,434.65
Willow st., Cross to Sta'e st.	413	12″	Clay	791.42	
Cross to Park st.	265	12″	Clay	378.17	
Union to Park st.	216	18″	Cem.	325.32	
Union st. to Hubbard ave.	219	10″	Clay	204.39	
					1,699.30
Wilmont st., Dickinson to Ranney st.	349	18″	Clay		
	450	15″	Clay		1,557.40
	386	12″	Clay		
Winchester st.	424	12″	Clay		357.96
Windsor st., Knox st., westerly	308	12″	Clay		
	266	10″	Clay		560.76
Winter st., Chestnut st., easterly	137	20″	Clay		414.46
Winthrop st., Main st., easterly	52	18″	Cem.		
	141	15″	Cem.	220.81	
	310	15″	Clay		
	230	12″	Clay	1,045.76	
					1,266.57

* Surface drainage only.

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SEWER SYSTEM.—*Concluded.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Wolcott st., Armory st., northerly	220	10″	Clay	....	
	206	10″	Clay	$192.49	
Liberty st., northerly	138	10″	Clay	214.59	
					$407.08
***Woodbine ave.**, Mill river intercepting sewer to Baxter ave	1,071	10″	Clay		993.00
Woodside terrace, Belmont ave., northerly	451	10″	Clay	334.36	
Forest Park ave., northerly	307	10″	Clay	22.04	
					356.40
Woodworth ave., State st., southerly	199	12″	Clay		614.25
	131	10″	Clay		
Worcester ave., Plainfield st. to Fisk ave	854	15″	Cem.		295.09
Worcester st., I. O., Myrtle to Chestnut st	4	24″	Clay	945.80	
	290	20″	Clay		
	382	2′-0″x3′-0″	Brick	1,283.00	
Chestnut to Holly st	670	1′-10″x2′-9″	Brick	2,398.09	
Oak st., easterly	275	12″	Clay	542.93	
	212	10″	Clay		
Pine st., easterly to Lyons st	546	20″	Clay	2,639.71	
	224	18″	Clay		
	601	15″	Clay		
	249	10″	Clay		
					7,809.53
Worthington st., submerged outlet	194	24″	Wood	1,883 04	
	22	24″	C. Iron	176.25	
†Conn. river to Main st	1,038	5′-7″x7′-0″	Brick	33,510.28	
†Main to Dwight st	821	5′-4″x7′-0″	Brick		
Dwight to Garden brook	566	4′-0″x6′-0″	Brick		
Garden brook to Spring st.	738	4′-3″ cir.	Brick	4,361.35	
Spring st., branch north	35	5′-0″ cir.	Brick		
Spring st., branch south	47	2′-0″x3′-0″	Brick		
Spring st., easterly	40	18″	Cem.	614.35	
	242	15″	Cem.		
	251	12″	Cem.		
Autumn st., westerly	113	12″	Cem.	118.78	
near Sacketts ave	145	10″	Cem.	111.47	
West brook, easterly	329	15″	Clay	1,110.54	
	217	12″	Clay		
West brook to Autumn st.	231	15″	Clay	727.56	

* Sanitary sewer. † Elliptical.

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SEWER SYSTEM.—*Concluded.*

NAME OF SEWER	Length in Feet	Size	Material	Cost	
Sacketts ave., westerly...	98	12″	Clay	$207.28	
Sacketts to Kibbe ave....	337	12″	Cem.	335.37	
Kibbe ave. to Federal st.	794	15″	Clay	826.90	
Kibbe hollow, westerly to Magazine st.....	167	18″	Clay	381.28	
Kibbe hollow to Bowdoin st.....	833	2′-2″ cir.	Con.	2,357.86	
near Magazine to Bowdoin st.....	248	2′-8″x4′-0″	Brick		
	354	2′-1″x3′-1½″	Brick		
Bowdoin st. to St. James ave.....	359	3′-4″x7′-2″	Brick	20,646.21	
	1,307	3′-4″x6′-9″	Brick		
					$67,368.52
X Court, Dickinson st., westerly and southerly.	34	10″	Clay	84.24	
	192	10″	Clay	19.05	
					103.20
Yale st., Dartmouth to Princeton st.....	350	24″	Clay		
	359	18″	Clay	1,770.13	
	233	15″	Clay		
Princeton st., northerly..	712	12″	Clay	524.54	
					2,294.67
York st.....	1,203	7′-0″ cir.	Brick		13,988.16
Totals	776,850				$1,784,865.79

NOTE.—Sewers constructed by the city on private land or ways are indexed under Private ways.

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RECAPITULATION BY SIZES.

DESCRIPTION	Length in Feet	Sizes	Material
Segmental	93	6′- 0″x4′- 3″	Brick and cem. mortar.
Elliptical shaped	1,038	5′- 7″x7′- 0″	" " "
" "	821	5′- 4″x7′- 0″	" " "
" "	1,095	4′-10″x7′- 3″	" " "
" "	1,949	4′- 8″x7′- 0″	" " "
" "	1,170	4′- 6″x6′- 9″	" " "
" "	1,040	4′- 4″x6′- 6″	" " "
" "	2,340	4′- 2″x6′- 3″	" " "
" "	1,746	3′- 8″x5′- 6″	" " "
" "	830	3′- 4″x5′- 0″	" " "
" "	536	3′- 2″x4′- 9″	" " "
" "	819	3′- 0″x4′- 6″	" " "
" "	1,093	2′-10″x4′- 3″	" " "
" "	2,506	2′- 8″x4′- 0″	" " "
" "	5,778	2′- 2″x3′- 3″	" " "
" "	417	2′- 0″x3′- 0″	" " "
Egg shaped	566	4′- 0″x6′- 0″	" " "
" "	1,131	3′-10″x5′- 9″	" " "
" "	1,074	3′- 8″x5′- 6″	" " "
" "	3,512	3′- 6″x5′- 3″	" " "
" "	359	3′- 4″x7′- 2″	" " "
" "	1,307	3′- 4″x6′- 9″	" " "
" "	8,787	3′- 4″x5′- 0″	" " "
" "	1,056	3′- 2″x4′- 9″	" " "
" "	2,877	3′- 0″x4′- 6″	" " "
" "	953	2′-10″x4′- 3″	" " "
" "	364	2′- 9″x4′- 1½″	" " "
" "	2,516	2′- 8″x4′- 0″	" " "
" "	4,818	2′- 6″x3′- 9″	" " "
" "	498	2′- 6″x3′- 6″	" " "
" "	150	2′- 5″x3′- 7½″	" " "
" "	8,573	2′- 4″x3′- 6″	" " "
" "	8,688	2′- 2″x3′- 3″	" " "
" "	603	2′- 1″x3′- 1½″	" " "
" "	18,874	2′- 0″x3′- 0″	" " "
" "	4,921	1′-11″x2′- 9″	" " "
" "	2,432	1′- 8″x2′- 6″	" " "
" "	917	1′- 6″x2′- 3″	" " "
" "	669	1′- 4″x2′- 0″	" " "
Circular	3,017	7′-0″	" " "
"	3,019	6′-6″	" " "
"	1,330	6′-0″	" " "
"	1,743	5′-9″	" " "
"	3,842	5′-6″	" " "
"	949	5′-3″	" " "
"	2,257	5′-0″	" " "
"	3,274	4′-7½″	" " "
"	1,762	4′-6″	" " "

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RECAPITULATION BY SIZES.—*Continued.*

DESCRIPTION	Length in Feet	Sizes	Material
Circular	3,362	4′-3″	Brick and cem. mortar.
"	952	4′-1″	" " "
"	2,399	4′-0″	" " "
"	385	3′-9″	" " "
"	677	3′-6″	" " "
"	2,209	3′-3″	" " "
"	2,549	3′-0″	" " "
"	2,072	2′-8″	" " "
"	1,520	2′-0″	" " "
"	190	1′-6″	" " "
Elliptical	416	2′-10″x4′- 3″	Brick-concrete.
"	245	3′- 0″x4′- 6″	" "
Segmental	60	5′- 0″x2′- 1″	Concrete.
Elliptical	385	4′-10″x7′- 3″	"
"	1,085	4′- 2″x6′- 3″	"
"	928	3′- 2″x4′- 9″	"
"	612	2′-10″x4′- 5″	"
"	3,344	2′-10″x4′- 3″	"
"	1,178	2′- 8″x4′- 0″	"
"	1,934	2′- 4″x3′- 6″	"
"	41	1′-10″x2′- 9″	"
Egg shaped	352	2′- 8″x4′- 0″	"
"	1,365	2′- 6″x3′- 9″	"
"	191	2′- 4″x3′- 6″	"
"	4,717	2′- 2″x3′- 3″	"
"	1,994	2′- 0″x3′- 0″	"
"	349	1′- 8″x2′- 6″	"
Circular	1,083	5′-0″	"
"	1,004	4′-9″	"
"	478	4′-3″	"
"	684	4′-0″	"
"	2,365	3′-9″	"
"	1,119	3′-0″	"
"	1,940	2′-8″	"
"	760	2′-6″	"
"	1,484	2′-3″	"
"	1,139	2′-2″	"
"	1,440	2′-0″	"
"	40,106	24″	Clay pipe.
"	30,742	20″	" "
"	45,681	18″	" "
"	75,589	15″	" "
"	145,878	12″	" "
"	139,638	10″	" "
"	14,474	8″	" "
"	287	6″	" "
"	20,904	18″	Cement pipe.
"	31,637	15″	" "
"	55,786	12″	" "
"	4,278	10″	" "

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RECAPITULATION BY SIZES.—*Concluded.*

DESCRIPTION	Length in Feet	Sizes	Material
Circular.....	651	8″	Cement pipe.
"	120	24″	Cast-iron pipe.
"	28	18″	" "
"	726	24″	Wood pipe.
"	290	18″	" "
Miscellaneous shapes....	919		Brick and cem. mortar.
Total.....	776,850		

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GENERAL CLASSIFICATION, 1916.

	Feet	Miles
Brick and cement mortar	137,343	26.010
Brick-concrete	661	.125
Concrete	32,031	6.067
Clay pipe	492,395	93.255
Cement pipe	113,256	21.450
Cast-iron pipe	148	.028
Wood pipe	1,016	.193
Total	776,850	147.128

SUMMARY OF SEWERAGE STATISTICS.

(In form recommended by Sanitary Section of Boston Society Civil Engineers.)

For the Year Ending December 1, 1916.

SPRINGFIELD, MASSACHUSETTS.

GENERAL.

Population by census of 1915,		102,971
Total area of city or town,		33.1 square miles
Area served by sewerage system,		10.1 square miles
Collection system,	For sewage only,	4.65 miles
	For sewage and surface water,	141.353 miles
	For surface water only,	1.125 miles

Method of disposal,—Gravity flow to Connecticut River.

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COLLECTION.

Mains (Everything but House and Catch Basin Connections).

		For sewage only.	For sewage and surface water.	For surface water only.
2.	Lineal feet brick,		137,343	
3.	" " concrete,		32,692	
4.	" " pipe,	24,552	576,323	5,940
5.	" " pipe extended during year,	5,347	13,106	1,146
6.	Number of inverted siphons,		1	
8.	Method of flushing: By connections with the water system.			
9.	Method of cleaning: By scrapers and flushing.			
11.	Number of direct connections with water mains for flushing,	13	600	
12.	Number of flushings of entire system during year,		26	
13.	Cost of flushing, per mile,		$26.56	
14.	Cost of cleaning, per mile,		$31.52	
17.	Number of storm overflows,		16	
18.	Method of ventilation: By manholes and well holes and through house stacks.			

HOUSE CONNECTIONS.

1.	By whom made:	By Sewer Department as far as street line.
2.	Sizes,	6" and 8"
3.	Number made during year,	590
4.	Lineal feet laid during year,	About 17,000
7.	Average cost per foot, connections made during year,	$0.60

GENERAL.

Total cost of collecting mains to date, ... $1,784,865.79
Proportion of cost of system paid for by abutters in fees, . . 40%+

Methods of assessing abutters and rate of assessment:—

Entrance fee of fifty ($50) dollars for dwelling houses.

For buildings used for business purposes two (2) cents per square foot of area covered by the building for the two lower stories, and an additional charge of one half (½) cent per square foot of area covered by the building for each additional story.

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REPORT

OF

ASHES, RUBBISH AND GARBAGE DIVISION

FOR FISCAL YEAR ENDING NOVEMBER 30, 1916.

Mr. F. H. Clark, Superintendent, Department of Streets and Engineering, Springfield, Mass.

DEAR SIR:—I submit herewith in accordance with your request the annual report of the Division of Ashes, Garbage and Waste Removal for the fiscal year ending November 30, 1916.

EXPENSE.

	Total Cost of Collection	Amount Collected	Unit Cost
Ashes,	$72,689.62	32,087 loads	$2.265
Rubbish,	18,953.82	6,075 loads	3.12
Garbage,	49,769.07	11,977.51 tons	4.155

ASHES COLLECTION.

The expense for the collection of ashes has been increased about thirty-four (34) per cent over that of the preceding year. This has been due in large measure to the unusual severity of the past winter. The intense cold and delayed spring were two very important factors contributing toward the large increase in the number of loads of ashes necessary to collect. This increase in number of loads collected amounted to twenty-six (26) per cent over that of last year. This would itself alone have increased to a large extent the expenditures in the Ashes Division, but it must be remembered that the disposal of these collections was greatly hampered by continuous snowstorms, many of them approaching blizzard proportions. The constantly increasing length of haul in this division, together with wage increases, has also increased to some extent the cost

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of the service. Notwithstanding the difficulties encountered in connection with the adverse weather, labor, and disposal conditions, the unit cost of collection has increased only thirteen cents per load, a fact to which I wish especially to call your attention.

I am led to believe that the decrease in the number of complaints received by this department is an indication of the continued improvement of the service. The heretofore too common complaint on account of the unattractive appearance of the various dumps has been, by reason of the continued separate collection of rubbish and ashes, almost entirely eliminated. A remaining source of complaint is the scattering of ashes and waste in yards and on walks. Although the department stands ready to attach a fair share of the blame to itself it believes that the licensed ragpickers and junk men are in some measure responsible as they have been noted on several occasions picking over the contents of the barrels awaiting collection and in some cases depositing rubbish over the tree belt in a very untidy manner. It would seem that the dissatisfaction arising from this source could be overcome by regulations prohibiting these salvage men intermeddling with the contents of the ashes and rubbish receptacles.

RUBBISH COLLECTIONS.

An increase of 648 loads collected in the Rubbish Division or about twelve (12) per cent over that of last year has taxed to perhaps more than its full capacity the furnace of the West street incinerator. This, however, was necessitated on account of the discontinuance of the incinerator on Pecousic avenue because of its delapidation. This state of affairs will not long continue as the new incinerator on Logan street is now nearly complete and will soon be placed in operation. It is planned to deliver all waste collected south of the Boston & Albany railroad tracks to this plant, which will greatly improve the service of the division. Despite the fact that the South End incinerator has not been in operation, the cost of collection and disposal of rubbish has decreased about twenty-one cents per load from that of last year. It is probable that a more favorable cost will be secured during the coming season.

GARBAGE COLLECTIONS.

There has been considerable increase in the cost per ton of the collection of garbage this year. A large part of this increase is due to the fact that the department has been put to the necessity of burying its garbage since the discontinuance of operation of the Merg Company's Reduction

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Plant on State street. The character of the service, I believe, continues to improve under the revised rules which have now been in effect about two years. However, considerable trouble is still experienced, and the inconvenience of handling and collecting garbage is the result of the continued use of a varied assortment of receptacles such as wooden barrels, tubs, beer kegs, etc., in which water collects and freezes and from which it is difficult and sometimes impossible to remove the contents. I would respectfully suggest that, to remove this difficulty, a standard can be purchased by the department and furnished to the householders at cost. I believe that such an arrangement would add greatly to the efficiency of the division.

ACKNOWLEDGMENTS.

The results that I have been able to obtain in this division have been due largely to the faithfulness of the employees who have been loyal during a season when labor conditions have been very uncertain, and to your able direction which I have so often sought and do appreciate.

Respectfully submitted,

E. G. BARNES,

Deputy Superintendent of Ashes, Rubbish and Garbage Collections.

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REPORT

OF

STREET LIGHTING DIVISION

FOR THE FISCAL YEAR ENDING NOVEMBER 30, 1916.

Mr. F. H. Clark, Superintendent of Streets and Engineering.

DEAR SIR:—The past year has been one of gradual progress in street lighting. Sixty-six arc lamps have been placed, while the number of incandescents has decreased five. Several of our thoroughfares have been rearranged. There has been considerable favorable comment on the flood lighting of the Municipal Group being installed by this division.

The percentage increase in the expenditures of 1916 over 1915 was greater than in the past on account of the large number of lamps connected during the latter part of 1915. It is probable, however, that there will not be another such increase for many years. It is worthy of note that since the re-organization the amount of money spent for street lighting, out of every dollar of total expenditure by the city, has decreased more than 25 per cent.

During the coming year there will be several large propositions to be met. As soon as the location of the new bridge is announced, the street lighting work resulting therefrom should be laid out so as to be ahead of actual requirements. Other probable changes in street lay-outs will also require considerable new street lighting.

I wish to recommend that the area in front of the Municipal Group be lighted continuously. There is much travel through at this point. This is our greatest show place and it is about the most inadequately lighted spot in the city. In connection with the flood lighting of the group the curb lamps were re-equipped and make it possible to satisfactorily light this place. These lamps should be kept lighted every night.

I wish to again emphasize the gain accomplished by changing to the new type of lighting on thoroughfares. Considerable of this has been done and it should be pushed forward as rapidly as we are able. The greatest growth this coming year should be on residential streets. On account of the number of new streets being opened up, we have not been able in many cases to light them as well as we desired but I feel that the time has come when we can do more for such cases than in the

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past. More can also be done for some of the older residential streets.

I wish to give due credit for the success of this division to you and to all who have in any way endeavored to help.

STREET LIGHTING DATA.

Number of arcs connected overhead, November 30, 1916,	468
Number of arcs connected underground, November 30, 1916,	1,249
Number of inverted arcs, November 30, 1916,	56
Number of incandescents connected overhead, November 30, 1916,	340
Number of incandescents connected underground, November 30, 1916,	93
Price: Pendant arcs,	$70.00
Inverted arcs,	75.00
Overhead incandescents,	15.00
Underground incandescents,	20.00

Type of arc: 5 ampere, 400-watt General Electric Magnetite Arc with high efficiency electrodes in medium Alba globes.

Inverted arcs: 5 ampere, 400-watt General Electric Magnetite Arc, in medium Alabaster polycase globe.

Type of incandescents: 80-watt series Tungstens with radial wave reflectors.

Hours per year: 4,000 for all lamps.

Current generated: Partly by Brush Arc machines; partly by rectifiers.

Inspection: Every light inspected twice each night by regular inspectors, besides police reports.

EXPENDITURES YEAR BY YEAR.

		Per Cent Increase Over Preceding Year.
1907	$78,245.50	3.96*
1908	86,243.84	3.38
1909	90,291.12	4.69
1910	96,908.49	7.32
1911	104,246.23	7.57
1912	111,485.16	6.94
1913	123,358.47	2.08†
1914	117,555.11‡	3.25
1915	122,602.70	4.29
1916	132,645.06	8.19

*11 months' bills only were paid in 1907 and this was taken into consideration in figuring percentage of increase.

†13 months' bills were paid in 1913 and this was taken into consideration in figuring percentage of increase.

‡In 1914 the salary of the Deputy Superintendent was charged to administration but in this table it is added to the street lighting account for purposes of comparsion.

Respectfully submitted,

WM. E. HODGE,

Deputy Superintendent Street Lighting.

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REPORT

OF

FORESTRY DIVISION

FOR THE FISCAL YEAR ENDING NOVEMBER 30, 1916.

Mr. F. H. Clark, Superintendent, Department of Streets and Engineering.

DEAR SIR:—I have the honor to transmit herewith the annual report of the Division of Forestry of the Department of Streets and Engineering for the fiscal year ending November 30, 1916.

The work of this division during the past year has followed the same general routine of former years. Removal of trees in poor condition or dead, and scouting for brown tail moths have occupied the crews during the winter; planting and spraying is carried on during the spring and early summer months, while pruning and surgery during the summer and fall complete a year's round.

The past summer we have been severely handicapped by the scarcity of men of a type satisfactory for forestry work. The division suffered a distinct loss by the death of Foreman M. J. Doyle in March, 1916, an employee of the division for fifteen years, and also by the resignation of Foreman L. F. Prouty in July. Both were able and interested employees who were rendering splendid service.

The records show that during the year there have been 966 calls for work, inspection, information or advice. Of these calls 646 have been completed, 320 are pending, the larger proportion of which will receive attention at the proper time for the work, as spraying, planting, etc.

I wish to suggest here that reports of injuries caused by insects or plant diseases, whether on private property or on the public shade trees, are always welcomed at this office, as early information regarding such infestation is very valuable in their control.

The trees planted in the nursery established a year ago have made a satisfactory growth with the exception of one lot of pin oaks which suffered from winter killing of the top and some of the very small trees which were heaved out of the ground by frost; in both cases the cause of

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the trouble was fall planting, the trees not having become thoroughly established before heavy freezing weather. Further plantings of ash, Celtis, Norway maple and pin oak seed have been made in the nursery frames this fall.

The inventory of stock on hand in the nursery shows:—

	1915	1916
Total Number of Trees,	12,095	9,502
Value,	$225.00	$710.10

The number of new trees planted on public streets total 477, of which number 135 were furnished by the city while the remainder, 342, were supplied by the abutter.

The changes in grade and location made in the highway construction on Boston road during the summer necessitated the re-location of a considerable number of the trees planted in 1915. This planting was extended in 1916 using twenty elms and ten maples. On Berkshire street eight oaks were relocated by transplanting, two at the City Library on State street, one at 741 State street, one at 23 Dartmouth street, one at 190 Fort Pleasant avenue, and three in front of the Sumner Avenue School.

The territory pruned during this season covered all streets south of the B. & A. R. R. tracks to and including State street, east to the Highland Branch of the N. Y., N. H. & H. R. R., and the streets south of State street between Walnut, Pine and Maple streets, including Maple street. Three men were employed in minor tree surgery most of the time while this section was being pruned, numerous cavities being given suitable treatment. The experimental treatment of large cavities by the use of reinforced facings and by the use of solid fills of creosoted wood blocks continue to give satisfactory results and several cases of these kinds of work which were done one and two years ago have won very favorable comment from visiting foresters.

The usual attention has been given to the work of pruning and dressing roots wherever sidewalk construction, curb setting, and highway construction were under way. The completion of the installation of the Fitz-Henry-Guptill pump and 800-gallon tank, purchased a year ago, on the Knox truck provided a piece of equipment which does an immense amount of very satisfactory spraying.

Arsenate of lead spray for the elm leaf beetle kept this insect pest completely under control and there seems to be a possibility that the annual spraying compaign against this insect may be omitted occasionally when we become better able to judge the extent of climatic checks.

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There have been a number of inquiries regarding injury to white birches on lawns, especially the European varieties. The injury in most cases is caused by the bronze birch borer, the slender white grubs of this pest make a twisting, winding gallery in the inner bark and outer sapwood, frequently girdling the branch. The top of the tree is usually invaded first and, as a rule, the birches are severely infested before the presence of the pest is suspected. The borers winter in the trees and the most practical method of checking them is to cut and burn, some time during the winter, all infested trees or parts of trees. We have no known infestation of Gypsy moth at present.

The brown tail moth was found in small numbers in a few localities when the township was scouted during the winter of 1915–16.

A fungus disease has been noted on the Norway maple. It is the Anthracnose known as Gloeosporium nervisequum (stone). The disease is of quite recent discovery but has been observed in several localities widely separated. The injury caused is a browning along the midrib and principal veins, followed by the dropping of the affected leaf. Control measures suggested are burning of affected leaves in the fall and the spraying of the trees with Bordeaux early in the spring. Injury to three trees has been observed due to salt poisoning where the Street Railway Company had a sack of salt placed against or near the trees during the winter; this matter was brought to the attention of the Street Railway officials and they agreed to take measures to avoid similar occurrences in the future. Gas poisoning has been observed in four cases involving eight trees. Cases of electric wires in street trees are reported occasionally, more commonly where the trees have grown up to the wires, and in such cases the Electric Light Company has been very prompt to remedy conditions, upon being notified.

There has been but little damage caused by storms to street trees, but numerous trees have been struck by autos and in many cases no report has been made to this office for some time. Any one observing such injuries is urged to report it to the City Forester at once.

At different times recently the matter of defects in walks caused by trees has been called to my attention and I would recommend that an item for not less than $500 be included in the budget to be expended by the Forestry Division in repairing defects in walks caused by tree growth.

The advantages of replacing the single team now used by the division with a light auto truck are again submitted as recommended in the 1915 report, as is also the desirability of centering the Forestry division at the

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State street property in combination with the nursery, whenever housing facilities can be provided.

More commodious office space, with proper lighting, would enable me to provide facilities for microscopic investigations, and also to have material and illustrations available for the information of people interested in matters connected with the care of a city's public shade trees.

Respectfully submitted,

J. ALDEN DAVIS,
Deputy City Forester.

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OVERSEERS OF THE POOR

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BOARD OF

OVERSEERS OF THE POOR

FOR 1916.

HON. FRANK E. STACY, *Chairman.*	
ARTHUR A. CALL,	*Term expires April 1, 1918.*
WILLIAM J. LEONARD, M.D.,	*Term expires April 1, 1918.*
HENRY P. NORRIS,	*Term expires April 1, 1917.*
WILLIAM R. THACKER,	*Term expires April 1, 1919.*

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REPORT

OF THE

BOARD OF OVERSEERS OF THE POOR

FOR THE

YEAR ENDING NOVEMBER 30, 1916.

To the City Council:—

The appropriation for the department was as follows:—

General Administration,	$9,520.00
Almshouse,	38,055.50
Wayfarers' Lodge,	4,575.00
Outside Relief,	39,600.00
Collections transferred to our credit,	3,441.24
Total resources,	$95,191.74

The total expenditure was $92,894.93, balance unexpended, $2,296.81. The total collections were $27,348.84, of which amount $23,907.60 was turned into the estimated revenues of the city. The total expenditures exceeded those of last year ($86,219.40) by $6,675.53. The expenditures and collections were the largest in the history of the department. The net expenditure was $65,546.09, which is also the largest to date.

In 1913, the year the act granting aid to mothers with dependent children took effect, the total expenditure was $55,438.35. The increase which has taken place in Springfield since the enactment of this law seems to prevail throughout the Commonwealth as shown by reports which come to hand. In quite a number of cities the per capita expenditure is over $1.00, while in Springfield, based on a population of 105,000, it is $0.88+.

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OUTDOOR RELIEF.

The expenditure for 1915 and 1916 was as follows:—

	1915	1916
Disbursed direct to poor by agent,	$31,358.19	$32,489.87
Paid to hospitals in Springfield,	3,491.45	4,576.92
Paid to cities and towns for Springfield poor,	3,238.56	3,034.48
Paid to state institutions,	556.30	489.73
	$38,644.50	$40,591.00

In 1915 there was an increase over the preceding year and the above shows an increase of $1,946.50 this year, a greater part of which was on account of payments to hospitals in Springfield. Our expenditure for 1915 covered the period of business depression during the winter of 1914–15 when there was a general lack of employment. The conditions during the past year have been quite different but the present prosperity has, in a large measure, been offset by the increased cost of provisions, fuel, clothing, medicine, etc. The extra cost of these items is in fact responsible for a portion of the increased expenditure for outside relief; the continued growth of the city is another factor, the number of families increasing proportionately.

The department is also enlarging the scope of its work. A Welfare Nurse was appointed May 1. Her duties consist in visiting the poor, caring for the sick, improving home conditions, making helpful suggestions, etc. Sufficient time has elapsed to demonstrate that the result of the work she is doing justifies the expenditure and is a benefit to the department and to those to whom she administers.

The amount of aid given to mothers with dependent children often called (incorrectly) widows' pension (Chapter 763, Acts of 1913) was $15,947.78, a slight increase over last year.

At the beginning of the year sixty-eight families were receiving this aid at our expense. At the close of the year there were sixty families being aided under this law in this city and four families who have a legal settlement in Springfield were being aided by other cities and towns. The law requires that the aid shall be adequate, permits the mother to work if the family is not to suffer by her absence, and provides that relatives shall be made to assist and that relief be obtained from societies and other sources if possible. There seems to be no uniform method of granting this aid. In some places it is given entirely in cash, in others wholly in orders. We have granted it both ways, giving orders for provisions, fuel, clothing, etc., also supplementing by cash in some cases, and in a few

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cases have given wholly cash. Our experience thus far leads us to believe that this method works to the advantage of all. It is the opinion of the state officials, who have supervision of this aid, that it has reached its maximum, it being thought that as new families are added, others will have reached a condition where they can be self-sustaining.

ALMSHOUSE.

There were 460 inmates during the year, the daily average being 124, which was 7 less than last year.

The total cost of maintaining the institution was $39,845.52. The average weekly cost per inmate was $5.45. Last year it was $4.88.

The increase is in part due to the advanced price of medicine and supplies of every kind and also to the fact that it has been necessary to pay higher wages to the employees in order to obtain and retain their services. New equipment has been installed in the laundry to replace that which was worn out; other than this there has been no unusual expenditure for repairs. The hospital accommodations, which several years ago were thought to be adequate for years to come, are being taxed to the limit, and if there is a great increase in the number of the patients it will soon be necessary to utilize the rooms on the second story of the hospital building which are now used for lodging the attendants of the Almshouse and the Isolation Hospitals. We think this will be imperative in the near future. The City Physician made 319 visits to the Almshouse during the past year.

The products of the farm were up to the average, in some respects better than usual. They were as follows:—

50 bushels peas at $1.50,	$75.00
20 bushels spinach at 50 cents,	10.00
40 bushels string beans at $1,	40.00
25 bushels shell beans at $1,	25.00
10 bushels lima beans at $1.50,	15.00
20 bushels summer squash at 60 cents,	12.00
5 bushels tomatoes at $1,	5.00
15 bushels beets at $1,	15.00
410 bushels potatoes at $1.75,	717.50
35 bushels turnips at 50 cents,	17.50
100 bushels corn on the cob at $1,	100.00
Sweet corn,	50.00
Ensilage in silo,	175.00
3,000 pounds Hubbard squash at 2½ cents,	75.00
1,000 cabbages at 4 cents,	40.00
52 tons of hay at $20 per ton,	1,040.00

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43,097 quarts milk at 5 cents,	$2,154.85
564 pounds butter made at 40 cents,	225.60
Pork sold,	610.08
Beef sold,	395.46
Bones, tallow, etc., sold,	237.46
	$6,035.45

LOCAL HOSPITALS.

Expense in the various hospitals in Springfield were as follows:—

Mercy Hospital,	$2,159.38
Springfield Hospital,	1,837.25
Wesson Memorial Hospital,	531.35
Hampden Hospital,	14.44
Home Hospital,	34.50
	$4,576.92

There was an increase of $1,085.47 in this expenditure. The number of patients in the various hospitals was 212 as compared with 143 last year. Notwithstanding the increased number, we have been able to provide for some cases at their homes through the assistance rendered by the Welfare Nurse and have also secured the discharge of patients at an earlier date than would otherwise be possible.

WAYFARERS' LODGE.

The number of tramps lodged was 916. In 1915 there were 2,101. As there has been plenty of work obtainable elsewhere we have had few applications for employment at the lodge. There is a shortage of seasoned wood and we have been unable to secure a sufficient quantity, at an advanced price, to supply the demands of our customers.

Tentative plans for a new lodge have been prepared. When a location is selected and funds appropriated it is quite likely that building operations will begin. We recommend early consideration of this matter as our present quarters are very unsatisfactory.

The financial statement is as follows:—

RECEIPTS.

Appropriation,	$4,575.00	
Transfers,	108.25	
		$4,683.25
Wood on hand December 1, 1915,		1,666.34
Cash sales,		2,465.50
Accounts receivable,		51.75
		$8,866.84

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EXPENDITURES.

Salary of keeper and teamster,	$1,581.00	
Paid for wood,	1,566.33	
Provisions, supplies, etc.,	95.06	
Coal,	28.22	
Hay and grain,	268.67	
Gasoline,	37.50	
Miscellaneous,	103.89	
Filing saws,	31.00	
Shoeing,	34.85	
Light,	34.23	
New equipment,	38.75	
		$3,819.50
Wood delivered to the poor,		468.00
		$4,287.50
Wood and supplies on hand December 1, 1916,		337.06
Profit and loss,		4,242.28
		$8,866.84

Respectfully submitted,

ARTHUR A. CALL,
WM. R. THACKER,
HENRY P. NORRIS,
Overseers of the Poor.

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STATISTICS

RECEIPTS AND TRANSFERS.

		Receipts.	Transfers.	
From appropriation,				$91,750.50
Various cities and towns:—				
Almshouse care,	$1,583.39			
Outside relief,	4,516.87			
		$6,100.26		
The Commonwealth, for temporary aid, care of sick, and transportation:—				
Almshouse care,	$181.72			
Outside relief,	10,001.11			
		10,182.83		
Isolation Hospital, for lighting, heating, ambulance service and ice,			$3,287.00	
Streets and Engineering Department, Soldiers' Relief, and Fire Department, wood,			108.25	
Soldiers' Relief, for care of the sick at hospitals,			41.99	
Health Department, for care of the sick at hospitals,			4.00	
				3,441.24
Individuals for care at hospitals and aid reimbursed:—				
Almshouse care,	$3,869.04			
Outside relief,	46.97			
		3,916.01		
Sale of farm products,		1,243.00		
Sale of wood,		2,465.50		
		*$23,907.60		$95,191.74

*Amount of receipts turned in to the Estimated Revenues of the City.

EXPENDITURES.

For the support of persons at the Almhouse,	$39,845.52
Outdoor relief, not including hospital expenses,	35,524.35
The support of patients in the local hospitals,	4,576.92
The State Infirmary,	177.50
The State Farm,	172.80

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The Massachusetts Hospital School,	$139.43
Salaries,	7,863.58
Miscellaneous expenses,	775.33
Wayfarers' Lodge,	3,819.50
	$92,894.93
Balance unexpended,	2,296.81
	*$95,191.74

*$800.00 greater in Treasurer's report represents amount advanced for office expenses and returned to the Treasurer at the end of the year.

ALMSHOUSE.

Number of persons in Almshouse November 1, 1915,	124
Number admitted during the year,	336
Total number of inmates,	460
Number discharged,	342
Number remaining November 30, 1916,	118
Average number of inmates,	124

OUTDOOR RELIEF.

The total number aided was:—

Having a settlement in the city,	1,209
Having a settlement elsewhere,	391
Having no settlement,	720
	2,320

The number of families aided was:—

Having a settlement in the city,	343
Having a settlement elsewhere,	115
Having no settlement,	266
	724

The number of families aided for the first time was:—

Having a settlement in the city,	127
Having a settlement elsewhere,	51
Having no settlement,	189
	367

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The number of persons aided the first time was:—

Having a settlement in the city,	335
Having a settlement elsewhere,	134
Having no settlement,	374
	843

EXPENSES OF OUTDOOR RELIEF.

(Including hospital aid)

Persons having a settlement in the city,	$25,207.02
Persons having a settlement elsewhere,	5,116.51
Persons having no settlement,	10,267.47
	$40,591.00

The total number of persons aided during the year was 2,780.

Sixty persons have been sent to the State Infirmary at Tewksbury.

Nine hundred sixteen tramps were lodged during the year.

One hundred nineteen persons have been aided who were non-residents but had a settlement here.

One hundred six notices were received from various cities and towns and the State, of aid rendered to persons whose settlement was claimed in this city.

The City Physician made 453 visits to the poor in their homes.

INVENTORY.

Almshouse:—	
Furniture, fixtures and farm tools,	$8,559.98
Provisions and supplies,	8,578.90
Horses, cows, and other live stock,	3,111.00
Office furniture and fixtures,	632.00
Wayfarers' Lodge:—	
Wood,	269.81
Fixtures,	487.25
Horse and vehicles,	235.00
Supplies,	67.25
	$21,941.19

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STATEMENT OF EXPENDITURES IN 1915-1916.

OUTDOOR RELIEF.

	Cash.	Transportation.	Fuel.	Provisions.	Clothing.	Medicine and Medical Attendance, and Nursing.	Cities and Towns.	Burials.	State Infirmary, Tewksbury.	Mass. Hospital School, Canton.	State Farm, Bridgewater.	Springfield Hospital.	Wesson Hospital.	Mercy Hospital.	Hampden Hospital.	Home Hospital.	Totals.
December..	$755 00	$42 60	$46 15	$1,281 79	$106 21	$61 95	.....	$5 00	.....	.....	.....	$886 00	$211 02	.....	.....	.....	$2,895 72
January....	766 98	43 28	89 05	1,330 54	72 53	62 05	.....	24 00	.....	.....	.....	.....	58 72	$583 94	.....	.....	2,981 04
February ..	906 08	73 13	1,261 73	1,228 62	66 07	58 60	$268 83	42 00	$43 00	.....	.....	230 00	.....	.....	.....	.....	4,178 06
March.....	801 89	23 16	479 43	1,518 82	90 00	55 95	7 93	30 00	.....	$34 29	.....	.....	.....	.....	.....	.....	3,041 47
April.....	824 95	41 18	124 48	1,436 32	86 45	37 50	105 89	15 00	10 00	.....	$76 00	434 75	.....	386 35	.....	.....	3,578 87
May.....	657 57	97 18	21 13	1,400 90	85 23	56 70	100 00	46 00	.....	.....	.....	228 75	149 00	.....	.....	.....	2,842 46
June	1,219 28	18 70	.....	1,583 70	78 13	136 65	688 66	150 00	.....	52 57	.....	.....	.....	.....	.....	$29 00	3,951 69
July.....	697 00	1 10	.....	1,274 52	18 86	38 50	73 68	85 50	46 00	.....	60 00	120 50	.....	507 81	.....	.....	2,923 47
August.....	1,352 70	104 78	.....	1,379 95	37 52	21 25	82 52	34 00	.....	.....	.....	240 50	.....	.....	$8 44	5 50	3,267 16
September.	1,140 44	40 20	.....	1,252 23	44 77	22 60	614 09	60 00	.....	52 57	.....	68 50	34 43	.....	6 00	.....	3,385 83
October....	689 75	12 44	11 50	1,196 65	132 88	37 30	327 27	60 00	78 50	.....	36 80	56 00	73 18	464 83	.....	.....	3,177 10
November..	1,310 50	71 34	429 53	1,396 52	49 81	26 12	770 61	70 00	.....	.....	.....	72 25	5 00	216 45	.....	.....	4,418 13
	$11,122 09	$569 09	$2,418 00	$16,280 56	$868 46	$615 17	$3,084 48	$621 50	$177 50	$139 43	$172 80	$1,837 25	$581 35	$2,159 38	$14 44	$34 50	$40,591 00

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STATEMENT OF EXPENDITURES IN 1915–1916.— CONTINUED.

ALMSHOUSE.

	Maintenance.	Salaries.	Furniture and Repairs.	Totals.
December	$1,504 91	$945 92	$56 64	$2,507 47
January	1,349 00	1,121 65	103 83	2,574 48
February	2,853 24	912 66	62 20	3,828 10
March	1,978 83	948 01	52 60	2,979 44
April	1,813 41	950 80	795 07	3,559 28
May	1,207 55	1,251 17	177 84	2,636 56
June	1,564 35	1,084 97	172 57	2,821 89
July	1,188 01	1,083 67	148 92	2,415 60
August	1,877 80	1,105 74	59 78	3,043 32
September	1,314 71	1,147 65	84 14	2,546 50
October	2,544 63	1,119 34	597 35	4,261 32
November	4,107 10	1,162 68	1,401 78	6,671 56
	$23,903 54	$12,834 26	$3,707 72	$39,845 52

GENERAL ADMINISTRATION.

	Salaries.	Miscellaneous.	Totals.	Wayfarers' Lodge.
December	$577 44	$38 40	$615 84	$492 44
January	548 74	31 36	580 10	268 96
February	568 33	42 27	610 60	356 76
March	577 33	39 40	616 73	339 51
April	626 33	88 25	714 58	231 50
May	674 34	39 41	713 75	324 21
June	724 96	134 09	859 05	264 67
July	727 33	79 71	807 04	217 43
August	718 82	93 67	812 49	78 43
September	685 32	80 24	765 56	235 23
October	707 32	61 80	769 12	438 79
November	727 32	46 73	774 05	571 57
	$7,863 58	$775 33	$8,638 91	$3,819 50

TOTALS.

	Outdoor Relief.	Almshouse.	General Administration.	Wayfarers' Lodge.	Grand Totals.
December	$2,895 72	$2,507 47	$615 84	$492 44	$6,511 47
January	2,981 04	2,574 48	580 10	268 96	6,404 58
February	4,178 06	3,828 10	610 60	356 76	8,973 52
March	3,041 47	2,979 44	616 73	339 51	6,977 15
April	3,578 87	3,559 28	714 58	231 50	8,084 23
May	2,842 46	2,636 56	713 75	324 21	6,516 98
June	3,951 69	2,821 89	859 05	264 67	7,897 30
July	2,923 47	2,415 60	807 04	217 43	6,363 54
August	3,267 16	3,043 32	812 49	78 43	7,201 40
September	3,335 83	2,546 50	765 56	235 23	6,883 12
October	3,177 10	4,261 32	769 12	438 79	8,646 33
November	4,418 13	6,671 56	774 05	571 57	12,435 31
	$40,591 00	$39,845 52	$8,638 91	$3,819 50	$92,894 98

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REPORT

OF THE

COMMITTEE ON STATE AND MILITARY AID AND SOLDIERS' RELIEF

SPRINGFIELD, MASS., December 18, 1916.

To the City Council of the City of Springfield.

GENTLEMEN:—This Committee respectfully reports for the fiscal year just closed the following disbursements for its several divisions, in comparison with those for the three years immediately preceding:—

	1916	1915	1914*	1913
State Aid, Civil War,.....	$13,575.00	$13,769.00	$13,866.00	$11,536.00
State Aid, War with Spain,	198.00	176.00	133.00	120.00
Military Aid, Civil War,...	220.00	100.00		
Military Aid, War with Spain,.....		70.00	110.00	38.00
Soldiers' Relief actually disbursed,.....	6,260.04	6,132.20	6,123.51	3,966.39
Salary and incidentals,....	819.52	827.67	917.05	752.42

*13 months.

Recipients of State and Military Aid enrolled at close of the fiscal year:—

Veteran soldiers,.....	70	75	78	69
Widows,.....	129	126	132	123
Soldiers wives,.....	1	1	3	3
Widowed mothers,.....	2	2	2	2
	202	204	215	197

Recipients of Soldiers' Relief during the year:—

Families,.....	20	28	21	25
Single persons,.....	73	75	79	63
	93	103	100	88

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These figures do not show material variation from the more recent years, and little comment seems required. The policy of the city toward these beneficiaries has not changed. There is comparatively little change in the number assisted, new cases coming in from the ranks of the formerly self-supporting to take the places of those deceased. The expense per capita has unavoidably increased somewhat, owing to the greater cost of supplies of all kinds and to the increasing age and greater requirements of many of the dependents. In all cases due regard has been had to the just interests of the city and state, as well as to the needs of soldier and widow or other dependents.

Respectfully submitted for the Committee,

JAMES L. BOWEN,
Secretary.

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REPORT

OF THE

BURIAL AGENT

SPRINGFIELD, MASS., December 18, 1916.

To the City Council of the City of Springfield:—

GENTLEMEN:—During the past year there were fewer calls than usual for the state burial allowance provided by Chapter 468, Section 17, Acts of 1909, as amended by Chapter 475 of the Acts of 1913, for the burial of honorably discharged soldiers or sailors, their wives, widows, army nurses, or dependent widowed mothers. The provisions of this act allow assistance in cases where the deceased does not leave means for meeting the burial expense. Either the death or the burial must have taken place in the municipality where the claim is made, and the state authorizes the allowance only in case the total expense of the burial, by whomever met or assumed, does not exceed $100. In comparison with the four preceding years, 1916 shows this tabulation:—

	1916.	1915.	1914.	1913.	1912.
Soldiers buried	6	8	12*	11†	12
Soldiers' wives	1	1	—	—	—
Soldiers' widows	5	7	5	4	7
Widowed mothers	–	1	—	1	—
	12	17	17	16	19

* Civil war, 11; war with Spain, 1. † Civil war, 9; war with Spain, 2.

FINANCIAL STATEMENT.

Payments; 11 at $50.00	$550.00
1 at $42.00	42.00
Total	$592.00

Respectfully submitted,

JAMES L. BOWEN, *Burial Agent.*

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REPORT

OF THE

SUPERVISOR OF SOLDIERS' AND SAILORS' GRAVES

SPRINGFIELD, MASS., November 3, 1916.

To His Honor, the Mayor, and the City Council of the City of Springfield.

GENTLEMEN:—I would respectfully submit the following report concerning the care of Soldiers' and Sailors' Graves.

The amounts expended for this care in the several cemeteries of the city for the year 1916 are as follows:—

Supervisor's Salary,	$200.00
Springfield Cemetery,	450.00
St. Michael's Cemetery,	75.00
St. Benedict's Cemetery,	50.00
St. Matthew's Cemetery,	15.00
St. Aloysius Cemetery,	6.00
Cherry Street Cemetery,	4.00
	$800.00

In the performance of the duties of this office for the unexpired term of Dwight M. Chapman for the present year, I have received the kindly co-operation of all the superintendents and caretakers of the several cemeteries.

Visitors will approve the conditions of the graves of soldiers and sailors which come under the provisions of Chapter 122 of the Act of March 4, 1914. There have been some additions to the number of graves to be cared for because of new burials. The nameplates that were placed on the post markers were not permanent, and I have placed metal tags on most of these with the name of the soldier, his company, and regiment, so that any one may see who is buried there.

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As was stated in the last report, most of the graves not cared for are single graves, or in lots, the owners of which have either died or removed from the city.

The effect of this act seems to have had a good influence in several instances, where friends have seemed to take more interest in caring for soldiers' graves which in other years have been neglected.

Respectfully submitted,

MARCUS M. FISK,
Supervisor of Soldiers' and Sailors' Graves.

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REPORT

OF THE

SEALER OF WEIGHTS AND MEASURES AND INSPECTOR OF COAL

SPRINGFIELD, MASS., January 5, 1917.

To the City Council of the City of Springfield:—

GENTLEMEN:—The financial statement connected with the work of this department for the fiscal year 1916 is a very simple one, and the figures of public interest may be thus stated:—

Appropriation		$2,595.00
EXPENSES.		
Salaries: Sealer, Deputy Sealers, Inspector of Coal	$1,970.98	
Expense of automobile	370.52	
Team hire for heavy work	99.20	
Apparatus and supplies	71.20	
Miscellaneous	65.82	
		2,577.72
Balance		$17.28
Sealing fees collected and paid City Treasurer		$583.64

The routine work of the department, in so far as it can be shown in tabular form, may be summarized under the following headings, as given in the annual report to the state department of weights and measures:—

	Sealed.	Condemned.
Platform scales, over 5,000 pounds	81	19
Platform scales, under 5,000 pounds	226	16
Counter scales	484	29
Beam scales	62	6
Spring balances	623	154
Computing scales	266	18
Slot personal scales	71	3

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	Sealed.	Condemned.
Prescription scales	36	3
Jewelers' scales	8	1
Weights	2,468	101
Dry measures	42	
Liquid measures	1,282	22
Automatic pumps	186	35
Milk jars	249	79
Ice cream cans	293	
Yardsticks	377	11
Steel tapes	36	
Total	6,791	499
Per cent. condemned, 7.35—.		
Office tests	1,312	154

TRIAL WEIGHINGS AND MEASUREMENTS.

	Tests.	Correct.	Under	Over
Coal (in wagons)	19	2	9	8
Coal (in paper bags)	132	120	12	
Wood	6	4	2	
Ice	69	33	4	32
Hay	25	20	3	2
Grain or feed	97	81	2	14
Flour	136	91	5	40
Butter	229	172	37	20
Dry commodities	312	108	7	197
Fruits and vegetables	100		8	92
Meats and provisions	10			10
Bread	280	70	202	8
Confectionery	90		10	80
Berry baskets (samples)	6	6		
Gasoline and oil	13	7	3	3
Barrels	65	38	18	9
	1,589	752	322	515

SUMMARY OF INSPECTIONS.

In stores, 474.
Of hawkers' and peddlers' wagons, 1,504.
Of hawkers' and peddlers' licenses, 1,340.
Of itinerant vendors, 4.
Of milk dealers' wagons, 192; bottles inspected, 13,028.
Of ice dealers' wagons, 275.
Of coal certificates, 11.
Of junk dealers' wagons, 100.

Popular apprehension that the public are being systematically and by wholesale cheated by dishonest merchants and dealers has its sufficient

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assurance by the above figures. It is proper to say that most of the variations noted are very slight; yet, however small the variation from true weight, the record must be entered and stand against the implicated parties. That most of the variations are due to the lack of careful attention on the part of the weigher is attested by the fact that as against 322 shortages detected in 1,589 reweighings, 515 packages showed surplus weight. One of the important duties of the sealer and his deputies is to detect the cases where wrong intent exists, to punish in such cases, to caution and instruct in others.

While the conditions of modern business demand from sealers more careful, constant, and intelligent attention, the growth of our city and the opening of new and exacting fields of labor give an increasing volume as well as a growing importance to the work which must be done. Two lines in which this growth has been exceptional may be noticed in this connection. Automatic gasoline pumps have suddenly become numerous. From the nature of its mechanism and location, such a pump is extremely liable to require frequent visitations from the sealer and to demand a very liberal portion of his time. Ours is especially an "automobile city," and the result is attested in the frequency of the apparatus for gasoline supply. The use of the open, odorous metal measure has largely given place to the more handy, cleanly, but invisible mechanical feeder. The official "seal" is the only assurance to the purchaser that he is receiving that for which he has bargained. The official duty of the deputy sealer in caring for the demands made in behalf of this single line of work means a great deal in time, energy, and intelligence which the formal report cannot show.

During the past summer an ordinance was enacted by our city government providing for the licensing of hawkers and peddlers, and the task of looking after the enforcement of its provisions devolves almost wholly upon the local weights and measures department. Taken in connection with the junk gatherers, ragpickers, and the various classes canvassing the community under state licenses, a large and very unsatisfactory field of labor is thus represented. During the last seven weeks of the fiscal year six violators of law from this field were brought into court, convicted, and fines amounting to $75.00 were paid. In addition to which innumerable warnings were given, information imparted, and many unworthy scales condemned and confiscated.

On July 12, Mr. Ralph H. O'Malley, who had been appointed deputy sealer by Mayor Stacy, reported for duty. This gave an increase of the working force of this department, which had long been urgently needed. After becoming acquainted with the duties of his position,

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Mr. O'Malley entered vigorously upon their discharge, and it is due to his intelligent and energetic action that the prosecutions above-mentioned have been entered and in each case successfully conducted. I anticipate much valuable assistance from him in the future.

Deputy Adelbert R. Geer has devoted a year of hard and earnest work to his duties. Apart from the regular routine of his work, he is constantly called from one part of the city to another to meet the need for his services where new apparatus has been installed, repairs have been made, or unsatisfactory action of scales demands the attention of an expert. His years of experience and knowledge of the city give him an efficient grasp of the various duties coming to his hands.

INSPECTOR OF COAL.

The duties of Inspector of Coal and Sealer of Weights and Measures traverse similar ground, and it is appropriate that they should be embodied under the same general heading. The several weighings made during the fiscal year show results practically in line with those of former periods, and no cases requiring action for short weight have arisen during the year. The summarized figures are herewith submitted:—

Number of loads of coal reweighed	19
Number showing exact weight	2
Number showing short weight	9
Number showing overweight	8
Total pounds of shortage shown	1,420
Total pounds of overweight shown	1,625
Net overweight on all loads weighed	205
Average overweight on all loads weighed, pounds	11

Present commercial conditions have created a serious situation in the coal supply of our city, in common with other communities, and the existing high prices of this indispensable commodity call for an especial care on the part of dealers, weighers, inspectors, and all others interested in the sale of coal, to the end that weight which is just and equitable both to buyer and seller shall be given. To that end this department, in this line especially, as well as in all others related to just and honorable dealing in the necessaries of life, solicits the confidence and co-operation of dealers and consumers. The office is ever open to all interested persons during business hours.

Respectfully submitted,

JAMES L. BOWEN,
Sealer of Weights and Measures and Inspector of Coal.

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BOARD OF HEALTH.

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ORGANIZATION OF HEALTH DEPARTMENT

BOARD OF HEALTH.

THOMAS F. REARDEN, M.D., *Chairman*,
EDGAR H. GUILD, M.D. PHILIP V. ERARD.

EDGAR H. GUILD, M.D.,
Health Physician and Bacteriologist.

WILLIAM L. YOUNG,
Agent and Clerk.

GRACE E. WARREN, *Clerk for Agent.*
MARY E. MACDONNELL, *Office Clerk.*

SANITARY INSPECTORS.

JACOB R. SACKETT, *Chief*,
ALGER P. BLAINE,
WILLIAM F. BOYLE,
WILLIAM J. HASSETT.
DANIEL J. MAHONEY,
HENRY WRIGHT, JR.,

INSPECTORS OF MILK.

STEPHEN C. DOWNS,
FRED L. ROBERTSON.

INSPECTOR OF VINEGAR.

STEPHEN C. DOWNS.

INSPECTOR OF ANIMALS, MEATS AND PROVISIONS.
INSPECTOR OF SLAUGHTERING.

HARRY LUKES, D.V.S.

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HEALTH DEPARTMENT HOSPITAL.

1414 State Street.

EDGAR H. GUILD, M.D., *Physician in Charge.*

CONSULTANTS.

EVERETT A. BATES, M.D.
DUDLEY CARLETON, M.D.

CONTAGIOUS DISEASES.

Visiting Physicians.

ORLAND R. BLAIR, M.D.
RALPH B. OBER, M.D.
HENRY RITTER, M.D.
CHARLES E. STREET, M.D.

TUBERCULOSIS.

Visiting Physicians.

LAURENCE D. CHAPIN, M.D.
PARKER M. CORT, M.D.
ERNEST L. DAVIS, M.D.
WALTER A. HOSLEY, M.D.

Aurist and Laryngologist.

WILLIAM A. HARE, M.D.

Roentgenologist.

ERNEST L. DAVIS, M.D.

ETHEL I. MINKLER, *Matron.*

MEDICAL INSPECTORS OF SCHOOLS.

EDGAR H. GUILD, M.D., *Director.*

WALTER H. CHAPIN, M.D.
MICHAEL W. HARRINGTON, M.D.
JAMES P. HILLARD, M.D.
WALTER A. HOSLEY, M.D.
URGEL LABELLE, M.D.
GEORGE T. LAMARCHE, M.D.
RALPH B. OBER, M.D.
THOMAS F. REARDEN, M.D.
ALLEN G. RICE, M.D.
HENRY RITTER, M.D.
ERDIX T. SMITH, M.D.
CHARLES E. STREET, M.D.
EDWARD J. SWEENEY, M.D.

SCHOOL NURSES.

MARGUERITE ARMSTRONG.
MARY A. HICKEY.
ELIZABETH N. JOYCE.
MARTHA R. JOYCE.

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DISPENSARY FOR TUBERCULOSIS.

137½ State Street.

EDGAR H. GUILD, M.D., *Director.*

DISPENSARY PHYSICIANS.

WALTER H. CHAPIN, M.D., *Chief of Clinic.*
PARKER M. CORT, M.D.
ERNEST H. JUDD, M.D.
JOHN M. TRACY, M.D.

WINIFRED A. HANNIGAN, *Department Nurse.*
ADALINE B. PERRY, *Clerk and Visitor.*

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THIRTY-FIFTH ANNUAL REPORT

OF THE

BOARD OF HEALTH

To His Honor, The Mayor, and Members of the City Council.

GENTLEMEN:—The volume of routine work carried on in the various established divisions of the Health Department increases proportionately with the growth of the city, and the information obtained of existing conditions emphasizes the value of the work being developed in other directions.

With upward of twenty different nationalities comprising the population of the city, the work of safeguarding the public health assumes broader aspects. In the general assimilation which is going on amongst these different elements, all matters pertaining to individual and community health should receive especial attention.

Contagious diseases can be fairly well controlled by restrictive supervision, but the proper conception of the value of sanitation and hygiene, suitable food, and living conditions in the preservation of health cannot be secured by rules and regulations, and other methods, which are constructive and educational in nature, are being employed to a greater extent.

While individual responsibility and co-operation are absolutely essential in real public health progress, the attitude of suspicion naturally present towards movements for social betterment must in some way be replaced by a feeling of confidence that the underlying motive in this important division of public health service is the ultimate benefit of the individual.

Many large employers of labor have found that it is a good investment to supervise the health of their employees in every manner possible, and that the expense thus incurred is well repaid with more efficient service and less interruption of work on account of illness. The same results are to be obtained in broader movements for conserving the public health, for the reason that there is no better asset for any community than the health of its citizens. Every city should assume its share of responsibility for establishing and carrying out a well considered plan, which has in view the highest possible development of a community of

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active, healthy people, who fully appreciate the advantages of individual health, not only for themselves, but for the general welfare of the public at large. It would be impossible for a health department to carry on the various activities involved in this undertaking, and fortunately it is not necessary in this city, where so many different agencies and associations are engaged in special lines of work having a definite bearing on the welfare of the community. It should also be understood, that, with hardly an exception, all civic activities have at least an indirect influence on public health, and this element should not be overlooked in considering the value of the work performed by the various departments of the city.

A willingness on the part of the public at large to observe the regulations for controlling contagious diseases, an improvement in the sanitary conditions of homes and grounds, with a desire for information on a great variety of subjects pertaining to the work and authority of the department, along with an expressed desire to co-operate in such manner as may be best, are constantly brought to the knowledge of the department, and furnish most encouraging evidence of results being accomplished in the direction indicated.

Public health officials have very generally come to the conclusion that the administration and development of a health department is a problem to be worked out by each city according to its own special needs, and that any standardization of procedure for different cities is not to be recommended. Communities differ so greatly in size, location, nature of industries, character and stability of population, that the prominence, which is given to certain activities in one city, would occupy relatively less importance in other cities. The amount of money available for health work and the general attitude of the public towards health matters, along with the authority of Boards of Health and its source, also limit and define the nature of the work to be undertaken. Fortunately in Massachusetts, local Boards of Health receive their authority from the statutes, and the legislature is very careful in enacting new laws abridging that authority or transferring it to other departments or commissions, either state or local.

TRANSACTION AND GENERAL WORK OF THE DEPARTMENT.

The Board of Health organized for the year by appointing Thomas F. Rearden, M.D., chairman, and William L. Young, clerk. The complete list of employees of the department accompanies the report.

Eighteen regular meetings were held during the year, and five special

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meetings. The following appointments were made, all of them under Civil Service regulations: Harry Lukes, D.V.S., as inspector of slaughtering; Adaline B. Perry, clerk and visitor for tuberculosis dispensary; Martha R. Joyce, provisional appointment as school nurse; Winifred A. Hannigan, permanent appointment as Health Department nurse.

Thirty-three stable licenses were granted and thirty-five applicants for stable licenses were given leave to withdraw. Nine licenses were granted to practice manicuring, massage, and giving of vapor baths. Ten premises were ordered to be connected with the public sewerage system. Seventeen undertakers' licenses were granted and six applications approved for conducting lying-in hospitals.

The entire work of the department is summarized in the various tables distributed throughout the report, indicating the variety of work performed and the systematic methods employed in keeping the necessary records in order to render the information available, and those who have been responsible for the completeness and accuracy of these records deserve much credit.

The tables referring to the occurrence of contagious diseases with the classification of diseases causing death, and infant mortality, are worthy of careful study, as they show and explain the variations which occur from year to year in the mortality rates.

The bakeries, lunchrooms, and restaurants of the city are regularly inspected, and with very few exceptions all reasonable precautions are taken to prevent any contamination of food or bakery products. The general cleanliness and care exercised in the different processes show improvement from year to year. It has not seemed practical to undertake a score card rating of these different industries, on account of the great difference in location, facilities for doing the work, and capital invested in the business. If the methods employed are in accord with sanitary requirements, the equipment is relatively of minor importance.

The routine inspection of alleys, cesspools, dumps, garbage cans, and yards consumes a great deal of the inspectors' time, which might be used to good advantage in other directions which have a more direct bearing on the protection of the public health. Cleanliness with care in the disposal of refuse material is a matter of civic pride and should be so considered by the individual, who is really responsible for the presence of these unsightly conditions.

It is believed that much of this routine inspection work could be equally well performed by the Police Department, which maintains patrolmen on every street in the city, who in their daily rounds

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[illegible] 6
[illegible] 15
[illegible] 21
[illegible] 13
[illegible] 6
[illegible] 8
[illegible] 80
[illegible] 2
[illegible] 2
Halls and stairways, insanitary, 10
Manure heaps, odor from, 9
Milk, adulteration of, 8
Milk, illegal bottling of, 5
Milk, contaminated, 2
Milk, unwholesome, 32
Odors from unknown source, 7
Plumbing, insanitary, 20
Poultry yards as a nuisance, 32
Privy vaults, odors from, 5
Privy vaults, workman's temporary, 11
Pure foods, poor quality, 12
Sewer drains, stoppage of, 24
Sewer drainage in cellar, 9
Sewer openings, odor from, 12

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Slops thrown on ground,	13
Stables, insanitary,	33
Stables occupied without a license,	5
Standing water, odor from,	29
Stores, refuse not removed,	39
Street sweepings in yard,	4
Swine, insanitary pens,	3
Tenements, insanitary,	25
Tenements, overcrowded,	8
Theater dressing rooms, insanitary,	2
Unclassified,	69
Water closets, insanitary,	42
Water closets, without water,	23
Water closets, frozen,	3
Water closets, insufficient number,	3

SANITARY INSPECTIONS.

Classification.	Total Inspections.	Re-Inspections.	First Notices.	Complied.	Pending.
Alleys,	3,035	562	464	457	7
Cellars,	1,536	117	97	96	1
Cesspools,	128	29	25	13	12
Dumps,	106	10	10	9	1
For enforcement of Polluted Water Regulations,	14	4	3	3	0
Garbage cans,	2,921	126	119	116	3
Hallways,	159	33	31	31	0
Poultry yards,	481	51	42	42	0
Sinks,	439	15	11	11	0
Defective plumbing,	65	40	23	23	0
Stables,	1,308	156	145	124	21
Standing water,	18	10	3	3	0
Stores,	132	24	20	20	0
Vaults,	195	27	15	14	1
Water closets,	1,741	127	91	91	0
Yards,	59,258	1,553	1,398	1,318	75
Miscellaneous,	2,535	83	60	58	2

Scarlet fever cases investigated,	240
Diphtheria cases investigated,	176
Typhoid fever cases investigated,	30
Cerebro-spinal meningitis cases investigated,	4
Anterior poliomyelitis cases investigated,	87
Septic sore throat,	1
Contagious diseases, suspected cases,	97
Visits to tubercular cases,	52
Visits to measles cases,	24
Visits to eye cases,	6
Visits to placarded houses,	432
Visits to children possibly exposed to infantile paralysis,	1,142
Diphtheria swabs, for release,	158
Histories (settlement),	272
Houses fumigated,	651
Rooms fumigated,	1,172

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TENEMENTS.

Tenements inspected,	1,648
Tenements reinspected,	196
Tenements overcrowded,	18
Tenements with dark rooms,	18
Tenements with dark hallways,	1
Tenements in need of repairs,	6
Tenements with water closets poorly ventilated,	9
Number defects found and notices given,	145
Number complied with,	145
Number pending,	0

Defects and nuisances discovered.

Tenements needing cleaning,	19
Hallways needing cleaning,	13
Rubbish in cellars,	15
Fowls in cellar,	1
Rabbits in cellar,	1
Water closets, defective,	35
Water closets, frozen,	11
Water closets needing cleaning,	26
Water closets, stoppage,	7
Soil pipes leaking,	2
Water pipes leaking,	2
Sinks, defective,	12
Bath tub, defective,	1

MISCELLANEOUS.

Inspections,	82,454
Reinspections,	3,642
Total inspections,	86,096
Verbal notices,	3,319
Written notices,	197
Notices served,	120
Nuisances abated by Board of Health, expense charged to owners,	12
Prosecutions,	1
Convictions,	1
Fines imposed,	$10
Vaults and cesspools abolished, sewer connection ordered,	10
Stable licenses granted,	33
Given leave to withdraw,	35
Pending,	105
Undertakers' licenses granted,	17
Licenses granted to practice manicuring, massage, and giving of vapor baths,	9

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NUMBER OF INSPECTIONS AND ACTION TAKEN TO REGULATE CERTAIN BUSINESS ESTABLISHMENTS.

Classification	Number	Inspections	Written Notices	Verbal Notices	To Whitewash	For Alterations	Notices to Clean	Others	Complied with	Pending
Bakeries	96	804	8	168	45	11	107	13	164	12
Bakery Salesrooms	5	24	....	....	....	....	....	....	....	....
Restaurants	114	924	8	107	7	4	90	9	106	4
Candy Manufactories	9	23	....	2	....	....	2	....	2	....
Ice Cream Plants	45	180	2	47	6	20	23	....	47	2
Soda Fountains and Ice Cream Salesrooms	169	526	....	33	....	7	23	3	32	1
Soda Bottling Plants	7	14	....	1	....	....	1	....	1	....
Barber Shops	144	582	....	25	....	5	13	7	25	....
Theaters	16	27	....	1	....	....	1	....	1	....
Licensed Lodging Houses	23	59	....	1	....	....	1	....	1	....
Infant Boarding Houses	5	4	....	....	....	....	....	....	....	....
Cafe Restaurants	23	129	....	3	....	....	2	1	1	2
Hotel Kitchens	15	92	1	6	2	1	4	....	6	1
Peanut Products Establishment	1	8	....	....	....	....	....	....	....	....
Ice Cream Cone Manufactories	3	5	....	1	....	....	1	....	1	....
Spaghetti Manufactory	1	15	....	6	1	....	5	....	6	....

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DISEASES DANGEROUS TO THE PUBLIC HEALTH.

The diseases declared to be dangerous to the public health are found in the following list. The statutes require that they shall be reported to the local Board of Health and attach a fine of not less than Fifty Dollars for every failure to report the occurrence of such a disease.

Actinomycosis
Anterior Poliomyelitis
Anthrax
Asiatic Cholera
Cerebro-spinal Meningitis
Chicken Pox
Diphtheria
Dog-bite (requiring anti-rabic treatment)
Dysentery:—
  a. Amebic
  b. Bacillary
German Measles
Glanders
Hookworm Disease
Infectious Diseases of the Eye:—
  a. Ophthalmia Neonatorum
  b. Suppurative Conjunctivitis
  c. Trachoma
Leprosy
Malaria
Measles
Mumps
Pellagra
Plague
Rabies
Scarlet Fever
Septic Sore Throat
Smallpox
Tetanus
Trichinosis
Tuberculosis (all forms)
Typhoid Fever
Typhus Fever
Whooping Cough
Yellow Fever

The department furnishes self-addressed postal cards for the use of physicians in reporting diseases, which can be obtained at the office or laboratory of the department.

As the diagnosis of diphtheria, exclusive of the laryngeal type, is practically a laboratory diagnosis, the laboratory findings are accepted as a report. Laboratory findings, either positive or negative, in examinations for tuberculosis or typhoid fever, are not so considered, and physicians must report all such cases to the department office. Negative findings especially do not relieve the physician of the responsibility of reporting cases of typhoid and tuberculosis when the clinical and physical signs of these diseases are present.

TUBERCULOSIS.

178 (173)* cases of tuberculosis were reported during the year, 152 pulmonary and 26 all other forms. There were 66 (81)* deaths from pulmonary tuberculosis and 25 (20)* deaths from all other forms of the

* Figures in parenthesis indicate corresponding figures for 1915.

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disease. The death rate from tuberculosis per 1,000 population is gradually diminishing. It was .97 per 1,000 in 1910, .98 in 1913, and .98 in 1915 with 1.09 in 1911, 1.04 in 1912, and 1.03 in 1914. This year the rate is .855 per 1,000 population, the lowest yet obtained. These figures are encouraging, and, with new cases not increasing in number, they furnish the great incentive for continued perseverance in the work of controlling and lessening the disease.

The State is committed to a definite policy regarding the hospitalization of tuberculosis, and while the expense to cities and towns will increase for many years, it will be a grand accomplishment if final eradication can be secured.

It should be borne in mind, however, that with 90% of the population infected before reaching fifteen years of age, the problem is not one of segregation alone, for such a course is practically impossible, and prevention and reduction of the 90% of early infection would seem to be of equal importance. In other words, it is believed that permanent progress in controlling tuberculosis will be obtained through protective and preventive measures directed toward safeguarding the health of the coming generation. Removal or isolation of active cases has a most important place in the work, but the improvement in housing conditions, habits of living, and general sanitation and hygiene, along with educational work, will be of equal importance in the final outcome of the campaign against tuberculosis.

The total expenses of the department for the year amounted to $63,386.89. 36% (38%) of this sum was used for the care of tuberculosis, and with the early extension of the hospital for more accommodations, it would certainly be wise business economy to do everything possible along educational and preventive lines, as a check on the increasing financial burden already present. Any and all movements along the lines already indicated in the larger movement for the protection of public health deserve the encouragement and financial support, not only of the city, but of the individual, who can at least co-operate and assume the responsibility of individual compliance with the things which make for good health and the prevention of sickness and disease.

DIPHTHERIA.

176 (142) cases of diphtheria were reported during the year with 17 (7) resident deaths, giving a case mortality of 9.6% (4.92%), 26 cases laryngeal, 5 nasal, and 140 tonsilar. 29 secondary infections occurred, 48 gave a history of contact with other cases, 5 were contracted outside

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the city, 4 were imported cases, and in 90 cases the source of infection could not be determined. The ages at which the disease occurred show that 84 cases occurred in children attending the public schools. The increase in case mortality over 1915 was without doubt due to the late recognition of the disease and the failure of parents to consult a physician and thus to have received early treatment with antitoxin. The increase in number of cases was chiefly due to the same causes, as the secondary infections occurred to a great extent in these families.

REPORTED CASES OF DIPHTHERIA BY AGE PERIODS.

Age periods.	1914.	1915.	1916.
Under 1	1	2	2
1–4	47	58	51
5–9	56	57	66
10–14	14	10	33
15–19	8	2	5
20–24	3	3	8
25–29	6	3	6
30–34	2	5	2
35–39	1	2	0
40–44	1	0	0
45–49	0	0	2
50–54	0	0	1
55–59	0	0	0
60–64	0	0	0
65–69	0	0	0
Total	139	142	176

SCARLET FEVER.

240 (117) cases were reported with 3 (1) deaths. 42 (6) secondary cases occurred and 55 (24) gave a history of contact with other cases. 12 (11) were contracted out of the city and in 125 (67) cases the source of infection was not determined. The disease has assumed a mild form for a number of years, and it has at times been difficult to make a correct diagnosis and the unrecognized cases, therefore, form a source of infection difficult to control. The continuance of the infection is now attributed to the secretions from the nose and throat or discharge from the ear, rather than from the desquamation which occurs with this disease, and success in controlling the disease will depend on the prompt isolation of all suspicious cases, showing the early symptoms which attend the disease, even before the eruption appears.

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TYPHOID FEVER.

30 (48) cases of typhoid fever were reported during the year, with 3 (7) deaths from resident cases, making a case mortality of 10% (14.5%). There were no (1) secondary infections; 1 (3) gave a history of contact with other cases; 10 (15) were contracted away from the home; 6 (6) made visits outside of the city within 30 days previous to the date of illness, and in 13 (31) cases the source of infection could not be discovered. No case of typhoid fever was in any way traceable to the milk or water supply.

ANTERIOR POLIOMYELITIS.

This disease has not been of epidemic proportions in this city since 1910, when 130 cases occurred with 25 deaths, giving a case mortality of 19%. Early in July the first case to be reported occurred in a child who had been brought from Brooklyn to escape the epidemic which was making rapid progress in that city. This case was soon followed by others in different sections of the city, not in any way connected with the first case, and in the month of July 6 cases were reported, with 16 in August, 38 in September, 17 in October, and 10 in November, making a total of 87 cases for the year. 21 resident deaths occurred, making a case mortality of 24.1%. Owing to the large number of families coming from infected districts, special oversight was maintained for two weeks on some 500 children and young adults, but only the case above-mentioned occurred in this group of people.

Unfortunately, the mode or manner in which the infection is transmitted has not been definitely determined, but the attitude of the department has been to consider it human contact infection, not only in the first epidemic, but also in the present one. Strict supervision was maintained over all cases, and any case which could not be properly isolated and cared for at home was removed to the Health Department hospital. 43 cases, including 10 non-residents, were admitted to the hospital during the course of the epidemic. Prompt removal to the hospital constituted the chief difference in efforts made to control the disease over those employed in 1910. The period of isolation was not increased, being four weeks in both epidemics, with two weeks considered as the incubation period. No attempts were made to quarantine entire families or districts in which the disease occurred.

Many theories have been advanced in explanation of the spread of the disease. The dependence of a positive diagnosis upon the occurrence of paralysis renders the diagnosis extremely difficult in many cases, and

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active, healthy people, who fully appreciate the advantages of individual health, not only for themselves, but for the general welfare of the public at large. It would be impossible for a health department to carry on the various activities involved in this undertaking, and fortunately it is not necessary in this city, where so many different agencies and associations are engaged in special lines of work having a definite bearing on the welfare of the community. It should also be understood, that, with hardly an exception, all civic activities have at least an indirect influence on public health, and this element should not be overlooked in considering the value of the work performed by the various departments of the city.

A willingness on the part of the public at large to observe the regulations for controlling contagious diseases, an improvement in the sanitary conditions of homes and grounds, with a desire for information on a great variety of subjects pertaining to the work and authority of the department, along with an expressed desire to co-operate in such manner as may be best, are constantly brought to the knowledge of the department, and furnish most encouraging evidence of results being accomplished in the direction indicated.

Public health officials have very generally come to the conclusion that the administration and development of a health department is a problem to be worked out by each city according to its own special needs, and that any standardization of procedure for different cities is not to be recommended. Communities differ so greatly in size, location, nature of industries, character and stability of population, that the prominence, which is given to certain activities in one city, would occupy relatively less importance in other cities. The amount of money available for health work and the general attitude of the public towards health matters, along with the authority of Boards of Health and its source, also limit and define the nature of the work to be undertaken. Fortunately in Massachusetts, local Boards of Health receive their authority from the statutes, and the legislature is very careful in enacting new laws abridging that authority or transferring it to other departments or commissions, either state or local.

TRANSACTION AND GENERAL WORK OF THE DEPARTMENT.

The Board of Health organized for the year by appointing Thomas F. Rearden, M.D., chairman, and William L. Young, clerk. The complete list of employees of the department accompanies the report.

Eighteen regular meetings were held during the year, and five special

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meetings. The following appointments were made, all of them under Civil Service regulations: Harry Lukes, D.V.S., as inspector of slaughtering; Adaline B. Perry, clerk and visitor for tuberculosis dispensary; Martha R. Joyce, provisional appointment as school nurse; Winifred A. Hannigan, permanent appointment as Health Department nurse.

Thirty-three stable licenses were granted and thirty-five applicants for stable licenses were given leave to withdraw. Nine licenses were granted to practice manicuring, massage, and giving of vapor baths. Ten premises were ordered to be connected with the public sewerage system. Seventeen undertakers' licenses were granted and six applications approved for conducting lying-in hospitals.

The entire work of the department is summarized in the various tables distributed throughout the report, indicating the variety of work performed and the systematic methods employed in keeping the necessary records in order to render the information available, and those who have been responsible for the completeness and accuracy of these records deserve much credit.

The tables referring to the occurrence of contagious diseases with the classification of diseases causing death, and infant mortality, are worthy of careful study, as they show and explain the variations which occur from year to year in the mortality rates.

The bakeries, lunchrooms, and restaurants of the city are regularly inspected, and with very few exceptions all reasonable precautions are taken to prevent any contamination of food or bakery products. The general cleanliness and care exercised in the different processes show improvement from year to year. It has not seemed practical to undertake a score card rating of these different industries, on account of the great difference in location, facilities for doing the work, and capital invested in the business. If the methods employed are in accord with sanitary requirements, the equipment is relatively of minor importance.

The routine inspection of alleys, cesspools, dumps, garbage cans, and yards consumes a great deal of the inspectors' time, which might be used to good advantage in other directions which have a more direct bearing on the protection of the public health. Cleanliness with care in the disposal of refuse material is a matter of civic pride and should be so considered by the individual, who is really responsible for the presence of these unsightly conditions.

It is believed that much of this routine inspection work could be equally well performed by the Police Department, which maintains patrolmen on every street in the city, who in their daily rounds

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would be able to keep a constant supervision of these matters, with the added weight which would go with such authority in securing more careful attention on the part of householders.

SUMMARY OF THE GENERAL WORK OF THE DEPARTMENT.

Complaints Investigated and Cause Removed.

Alleys, insanitary,	27
Animals, dead in yard,	27
Animals, dead in street,	9
Animals, kept in cellar,	5
Animals, kept in house,	2
Animals, nuisance caused by,	10
Ashes, rubbish, and garbage on ground,	140
Buildings, odor in,	9
Cellars, water in,	2
Cellars, insanitary,	39
Cesspools, overflowing,	16
Committing nuisance,	8
Complaints investigated, no cause found,	29
Contagious diseases, suspected cases,	32
Contagious diseases, failure to observe rules relative to,	81
Dumping grounds, papers and rubbish blown from,	6
Dumping grounds, odor from,	15
Dumping rubbish, unlawfully,	21
Fish and meat markets, odor from,	13
Fowls kept in cellar,	6
Garbage in cellar,	8
Garbage, insanitary receptacle,	80
Garbage in house,	2
Garbage wagons, leaking,	2
Halls and stairways, insanitary,	10
Manure heaps, odor from,	9
Milk, adulteration of,	8
Milk, illegal bottling of,	5
Milk, contaminated,	2
Milk, unclassified,	32
Odors from unknown source,	7
Plumbing, insanitary,	20
Poultry yards as a nuisance,	32
Privy vaults, odors from,	5
Privy vaults, workman's temporary,	11
Provisions, poor quality,	12
Sewer drains, stoppage of,	24
Sewer drainage in cellar,	9
Sewer openings, odor from,	12

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Slops thrown on ground,	13
Stables, insanitary,	33
Stables occupied without a license,	5
Standing water, odor from,	29
Stores, refuse not removed,	39
Street sweepings in yard,	4
Swine, insanitary pens,	3
Tenements, insanitary,	25
Tenements, overcrowded,	8
Theater dressing rooms, insanitary,	2
Unclassified,	69
Water closets, insanitary,	42
Water closets, without water,	23
Water closets, frozen,	3
Water closets, insufficient number,	3

SANITARY INSPECTIONS.

Classification.	Total Inspections.	Re-Inspections.	First Notices.	Complied.	Pending.
Alleys,	3,035	562	464	457	7
Cellars,	1,536	117	97	96	1
Cesspools,	128	29	25	13	12
Dumps,	106	10	10	9	1
For enforcement of Polluted Water Regulations,	14	4	3	3	0
Garbage cans,	2,921	126	119	116	3
Hallways,	159	33	31	31	0
Poultry yards,	481	51	42	42	0
Sinks,	439	15	11	11	0
Defective plumbing,	65	40	23	23	0
Stables,	1,308	156	145	124	21
Standing water,	18	10	3	3	0
Stores,	132	24	20	20	0
Vaults,	195	27	15	14	1
Water closets,	1,741	127	91	91	0
Yards,	59,258	1,553	1,393	1,318	75
Miscellaneous,	2,535	83	60	58	2

Scarlet fever cases investigated,	240
Diphtheria cases investigated,	176
Typhoid fever cases investigated,	30
Cerebro-spinal meningitis cases investigated,	4
Anterior poliomyelitis cases investigated,	87
Septic sore throat,	1
Contagious diseases, suspected cases,	97
Visits to tubercular cases,	52
Visits to measles cases,	24
Visits to eye cases,	6
Visits to placarded houses,	432
Visits to children possibly exposed to infantile paralysis,	1,142
Diphtheria swabs, for release,	158
Histories (settlement),	272
Houses fumigated,	651
Rooms fumigated,	1,172

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TENEMENTS.

Tenements inspected,	1,648
Tenements reinspected,	196
Tenements overcrowded,	18
Tenements with dark rooms,	18
Tenements with dark hallways,	1
Tenements in need of repairs,	6
Tenements with water closets poorly ventilated,	9
Number defects found and notices given,	145
Number complied with,	145
Number pending,	0

Defects and nuisances discovered.

Tenements needing cleaning,	19
Hallways needing cleaning,	13
Rubbish in cellars,	15
Fowls in cellar,	1
Rabbits in cellar,	1
Water closets, defective,	35
Water closets, frozen,	11
Water closets needing cleaning,	26
Water closets, stoppage,	7
Soil pipes leaking,	2
Water pipes leaking,	2
Sinks, defective,	12
Bath tub, defective,	1

MISCELLANEOUS.

Inspections,	82,454
Reinspections,	3,642
Total inspections,	86,096
Verbal notices,	3,319
Written notices,	197
Notices served,	120
Nuisances abated by Board of Health, expense charged to owners,	12
Prosecutions,	1
Convictions,	1
Fines imposed,	$10
Vaults and cesspools abolished, sewer connection ordered,	10
Stable licenses granted,	33
Given leave to withdraw,	35
Pending,	105
Undertakers' licenses granted,	17
Licenses granted to practice manicuring, massage, and giving of vapor baths,	9

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NUMBER OF INSPECTIONS AND ACTION TAKEN TO REGULATE CERTAIN BUSINESS ESTABLISHMENTS.

Classification	Number	Inspections	Written Notices	Verbal Notices	To Whitewash	For Alterations	Notices to Clean	Others	Complied with	Pending
Bakeries	96	804	8	168	45	11	107	13	164	12
Bakery Salesrooms	5	24	....	....	....	....	....	....	....	....
Restaurants	114	924	3	107	7	4	90	9	106	4
Candy Manufactories	9	23	....	2	....	....	2	....	2	....
Ice Cream Plants	45	180	2	47	6	20	23	....	47	2
Soda Fountains and Ice Cream Salesrooms	169	526	....	33	....	7	23	3	32	1
Soda Bottling Plants	7	14	....	1	....	....	1	....	1	....
Barber Shops	144	532	....	25	....	5	13	7	25	....
Theaters	16	27	....	1	....	....	1	....	1	....
Licensed Lodging Houses	23	59	....	1	....	....	1	....	1	....
Infant Boarding Houses	5	4	....	....	....	....	....	....	....	....
Cafe Restaurants	23	129	....	3	....	....	2	1	1	2
Hotel Kitchens	15	92	1	6	2	1	4	....	6	1
Peanut Products Establishment	1	8	....	....	....	....	....	....	....	....
Ice Cream Cone Manufactories	3	5	....	1	....	....	1	....	1	....
Spaghetti Manufactory	1	15	....	6	1	....	5	....	6	....

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DISEASES DANGEROUS TO THE PUBLIC HEALTH.

The diseases declared to be dangerous to the public health are found in the following list. The statutes require that they shall be reported to the local Board of Health and attach a fine of not less than Fifty Dollars for every failure to report the occurrence of such a disease.

Actinomycosis
Anterior Poliomyelitis
Anthrax
Asiatic Cholera
Cerebro-spinal Meningitis
Chicken Pox
Diphtheria
Dog-bite (requiring anti-rabic treatment)
Dysentery:—
  a. Amebic
  b. Bacillary
German Measles
Glanders
Hookworm Disease
Infectious Diseases of the Eye:—
  a. Ophthalmia Neonatorum
  b. Suppurative Conjunctivitis
  c. Trachoma
Leprosy
Malaria
Measles
Mumps
Pellagra
Plague
Rabies
Scarlet Fever
Septic Sore Throat
Smallpox
Tetanus
Trichinosis
Tuberculosis (all forms)
Typhoid Fever
Typhus Fever
Whooping Cough
Yellow Fever

The department furnishes self-addressed postal cards for the use of physicians in reporting diseases, which can be obtained at the office or laboratory of the department.

As the diagnosis of diphtheria, exclusive of the laryngeal type, is practically a laboratory diagnosis, the laboratory findings are accepted as a report. Laboratory findings, either positive or negative, in examinations for tuberculosis or typhoid fever, are not so considered, and physicians must report all such cases to the department office. Negative findings especially do not relieve the physician of the responsibility of reporting cases of typhoid and tuberculosis when the clinical and physical signs of these diseases are present.

TUBERCULOSIS.

178 (173)* cases of tuberculosis were reported during the year, 152 pulmonary and 26 all other forms. There were 66 (81)* deaths from pulmonary tuberculosis and 25 (20)* deaths from all other forms of the

* Figures in parenthesis indicate corresponding figures for 1915.

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disease. The death rate from tuberculosis per 1,000 population is gradually diminishing. It was .97 per 1,000 in 1910, .98 in 1913, and .98 in 1915 with 1.09 in 1911, 1.04 in 1912, and 1.03 in 1914. This year the rate is .855 per 1,000 population, the lowest yet obtained. These figures are encouraging, and, with new cases not increasing in number, they furnish the great incentive for continued perseverance in the work of controlling and lessening the disease.

The State is committed to a definite policy regarding the hospitalization of tuberculosis, and while the expense to cities and towns will increase for many years, it will be a grand accomplishment if final eradication can be secured.

It should be borne in mind, however, that with 90% of the population infected before reaching fifteen years of age, the problem is not one of segregation alone, for such a course is practically impossible, and prevention and reduction of the 90% of early infection would seem to be of equal importance. In other words, it is believed that permanent progress in controlling tuberculosis will be obtained through protective and preventive measures directed toward safeguarding the health of the coming generation. Removal or isolation of active cases has a most important place in the work, but the improvement in housing conditions, habits of living, and general sanitation and hygiene, along with educational work, will be of equal importance in the final outcome of the campaign against tuberculosis.

The total expenses of the department for the year amounted to $63,386.89. 36% (38%) of this sum was used for the care of tuberculosis, and with the early extension of the hospital for more accommodations, it would certainly be wise business economy to do everything possible along educational and preventive lines, as a check on the increasing financial burden already present. Any and all movements along the lines already indicated in the larger movement for the protection of public health deserve the encouragement and financial support, not only of the city, but of the individual, who can at least co-operate and assume the responsibility of individual compliance with the things which make for good health and the prevention of sickness and disease.

DIPHTHERIA.

176 (142) cases of diphtheria were reported during the year with 17 (7) resident deaths, giving a case mortality of 9.6% (4.92%), 26 cases laryngeal, 5 nasal, and 140 tonsilar. 29 secondary infections occurred, 48 gave a history of contact with other cases, 5 were contracted outside

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the city, 4 were imported cases, and in 90 cases the source of infection could not be determined. The ages at which the disease occurred show that 84 cases occurred in children attending the public schools. The increase in case mortality over 1915 was without doubt due to the late recognition of the disease and the failure of parents to consult a physician and thus to have received early treatment with antitoxin. The increase in number of cases was chiefly due to the same causes, as the secondary infections occurred to a great extent in these families.

REPORTED CASES OF DIPHTHERIA BY AGE PERIODS.

Age periods.	1914.	1915.	1916.
Under 1	1	2	2
1–4	47	58	51
5–9	56	57	66
10–14	14	10	33
15–19	8	2	5
20–24	3	3	8
25–29	6	3	6
30–34	2	5	2
35–39	1	2	0
40–44	1	0	0
45–49	0	0	2
50–54	0	0	1
55–59	0	0	0
60–64	0	0	0
65–69	0	0	0
Total	139	142	176

SCARLET FEVER.

240 (117) cases were reported with 3 (1) deaths. 42 (6) secondary cases occurred and 55 (24) gave a history of contact with other cases. 12 (11) were contracted out of the city and in 125 (67) cases the source of infection was not determined. The disease has assumed a mild form for a number of years, and it has at times been difficult to make a correct diagnosis and the unrecognized cases, therefore, form a source of infection difficult to control. The continuance of the infection is now attributed to the secretions from the nose and throat or discharge from the ear, rather than from the desquamation which occurs with this disease, and success in controlling the disease will depend on the prompt isolation of all suspicious cases, showing the early symptoms which attend the disease, even before the eruption appears.

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TYPHOID FEVER.

30 (48) cases of typhoid fever were reported during the year, with 3 (7) deaths from resident cases, making a case mortality of 10% (14.5%). There were no (1) secondary infections; 1 (3) gave a history of contact with other cases; 10 (15) were contracted away from the home; 6 (6) made visits outside of the city within 30 days previous to the date of illness, and in 13 (31) cases the source of infection could not be discovered. No case of typhoid fever was in any way traceable to the milk or water supply.

ANTERIOR POLIOMYELITIS.

This disease has not been of epidemic proportions in this city since 1910, when 130 cases occurred with 25 deaths, giving a case mortality of 19%. Early in July the first case to be reported occurred in a child who had been brought from Brooklyn to escape the epidemic which was making rapid progress in that city. This case was soon followed by others in different sections of the city, not in any way connected with the first case, and in the month of July 6 cases were reported, with 16 in August, 38 in September, 17 in October, and 10 in November, making a total of 87 cases for the year. 21 resident deaths occurred, making a case mortality of 24.1%. Owing to the large number of families coming from infected districts, special oversight was maintained for two weeks on some 500 children and young adults, but only the case above-mentioned occurred in this group of people.

Unfortunately, the mode or manner in which the infection is transmitted has not been definitely determined, but the attitude of the department has been to consider it human contact infection, not only in the first epidemic, but also in the present one. Strict supervision was maintained over all cases, and any case which could not be properly isolated and cared for at home was removed to the Health Department hospital. 43 cases, including 10 non-residents, were admitted to the hospital during the course of the epidemic. Prompt removal to the hospital constituted the chief difference in efforts made to control the disease over those employed in 1910. The period of isolation was not increased, being four weeks in both epidemics, with two weeks considered as the incubation period. No attempts were made to quarantine entire families or districts in which the disease occurred.

Many theories have been advanced in explanation of the spread of the disease. The dependence of a positive diagnosis upon the occurrence of paralysis renders the diagnosis extremely difficult in many cases, and

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it is believed that many cases occur without the development of paralysis, and are therefore not recognized, but considered as some indefinite illness in which all symptoms disappeared in a few days. If this should prove to be the case, much of the confusion and uncertainty surrounding the disease would be cleared up. The extension of the disease by human contact would be as easy to accept, as it is in diphtheria, where the source of infection is now difficult to determine in a large percentage of cases. The immunity which would be established in these unrecognized cases, along with a natural immunity which undoubtedly exists, would explain satisfactorily the small incidence which obtains per 1,000 population for this disease, either in children or adults.

The disability following the disease is the most distressing feature connected with its occurrence, and the efforts which are being made to restore the paralyzed muscles to normal or useful condition will no doubt establish a definite policy in dealing with these after effects, and relieve the disease of much of its present unfortunate results. A clinic for the after treatment of poliomyelitis is to be established in Springfield, under the combined direction of the Harvard Infantile Paralysis Commission and the State Department of Health, with the intention of continuing the oversight and care of all children disabled by this disease, for a period of at least two years. The movement will receive the hearty co-operation of the department, and its facilities will be made available in carrying out this most desirable work.

ANTERIOR POLIOMYELITIS—1916.

TABLE SHOWING NUMBER OF CASES AT DIFFERENT AGES.

Ages	Under 1 year	1	2	3–4	5–9	10–14	15–19	20–29	Total
No. cases	4	15	15	25	15	3	4	5	87

OTHER DISEASES DANGEROUS TO THE PUBLIC HEALTH.

1293 (611) cases of measles were reported, with 14 (3) deaths; 132 (625) cases of whooping cough with 2 (18) deaths; 64 (73) cases of infectious diseases of the eye were reported during the year, all of which were investigated by the Health Department nurse, receiving such care and attention as was necessary. How many of this number were due to specific infection does not appear, but the fact that very few of them required special treatment and the eyes were in normal condition in a few days indicates that they should not be so classified.

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13 cases of trichinosis were reported, 12 of which originated from the same source, which was found to be infected pork from outside the city that had not been inspected. No deaths occurred, and all the cases made a satisfactory recovery.

DEATHS FROM TUBERCULOSIS—1916.

(Pulmonary)

BY WARDS AND MONTHS.

Wards.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1	....	1	2	1	....	1	1	3	....	1	2	....	12
2	1	2	2	....	....	1	3	1	....	2	....	1	13
3	1	....	1	....	1	....	1	....	....	....	1	2	7
4	1	....	....	....	1	....	....	....	1	....	....	1	4
5	....	1	1	1	1	....	....	....	....	1	1	....	6
6	....	1	....	1	....	2	1	....	....	....	....	1	6
7	....	1	....	2	....	1	....	....	....	1	....	3	8
8	....	1	2	1	....	1	1	....	1	....	....	....	7
Non-residents	....	....	1	....	1	....	....	....	....	1	....	....	3
Totals	3	7	9	6	4	6	7	4	2	6	4	8	66

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TABLE SHOWING DEATH RATE OF TUBERCULOSIS FROM 1890, ESTIMATED ON POPULATION.

YEAR	POPULATION	DEATHS	RATE
1890	*44,179	114	2.58
1896	*51,522	97	1.88
1900	*62,059	111	1.78
1901	64,412	122	1.96
1902	66,754	111	1.66
1903	69,279	114	1.64
1904	71,629	123	1.7
1905	73,550	120	1.63
1906	76,385	116	1.52
1907	79,227	114	1.44
1908	81,918	91	1.11
1909	84,511	101	1.19
1910	87,776	85	.96
1911	90,962	106	1.09
1912	94,171	98	1.04
1913	97,271	98	.98
1914	100,484	100	1.03
1915	103,577	98	.98
1916	106,722	70	.65

*Official census.

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TABLE SHOWING REPORTED CASES OF COMMUNICABLE DISEASES BY MONTHS—1916.

Diseases.	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Actinomycosis	....	....	....	....	....	....	....	....	....	....	....	....	....
Anterior Poliomyelitis	....	....	....	....	....	....	6	16	38	17	10	....	87
Anthrax	....	....	....	....	....	....	....	....	....	....	....	....	....
Asiatic Cholera	....	....	....	....	....	....	....	....	....	....	....	....	....
Cerebro - Spinal Meningitis	....	....	....	1	1	....	...	....	....	....	....	2	4
Chicken Pox	20	21	28	24	9	10	3	....	1	....	6	9	126
Diphtheria	20	10	16	15	9	4	10	7	5	30	31	19	176
Dog-bite (requiring anti-rabic treatment)	....	....	....	....	....	....	....	....	....	....	....	....	....
Dysentery:—													
a. Amebic	....	....	....	....	....	....	....	....	....	....	....	....	....
b. Bacillary	....	....	....	....	....	....	....	....	....	....	....	....	....
German Measles	3	1	3	4	9	1	1	1	1	....	1	....	25
Glanders	....	....	....	....	....	....	....	....	....	....	....	....	....
Hookworm Disease	....	....	....	....	....	....	....	....	...	....	....	....	...
Infectious Diseases of the Eye:—													
a. Ophthalmia Neonatorum	9	3	10	5	12	6	5	3	4	3	3	1	64
b. Suppurative Conjunctivitis	....	....	....	2	....	....	....	....	....	....	....	....	2
c. Trachoma	....	....	....	....	....	....	....	....	....	....	....	....	....
Leprosy	....	....	....	....	....	....	....	....	....	....	....	....	....
Malaria	....	....	....	1	....	1	....	....	....	....	....	1	[3
Measles	7	35	165	464	411	144	60	2	2	1	2	....	1,298
Mumps	15	13	24	40	20	9	8	2	....	3	2	2	138
Pellagra	....	....	....	....	....	....	....	1	....	....	....	....	1
Plague	....	....	....	....	....	....	....	....	....	....	....	....	....
Rabies	....	....	....	....	....	....	....	....	....	....	....	....	....
Scarlet Fever	21	18	31	37	26	16	14	6	6	17	21	27	240
Septic Sore Throat	....	....	....	....	....	....	1	....	....	....	....	....	1
Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	....
Tetanus	....	1	....	....	....	....	....	....	....	....	....	....	1
Trichinosis	....	....	1	1	....	....	....	....	....	....	11	....	13
Tuberculosis:—													
Pulmonary	11	12	11	20	8	8	16	18	8	18	9	18	152
Others	....	2	2	1	4	1	3	....	4	1	4	4	26
Typhoid Fever	3	....	....	....	1	....	5	3	1	3	7	2	30
Typhus Fever	....	....	....	....	....	....	....	....	....	....	....	....	....
Whooping Cough	14	18	44	12	7	6	9	2	15	....	3	2	132
Yellow Fever	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	123	134	330	627	517	206	141	66	85	88	110	87	2,514

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TABLE SHOWING DEATH RATE OF TUBERCULOSIS FROM 1890, ESTIMATED ON POPULATION.

YEAR	POPULATION	DEATHS	RATE
1890	*44,179	114	2.58
1895	*51,522	97	1.88
1900	*62,059	111	1.78
1901	64,412	122	1.96
1902	66,854	111	1.66
1903	69,389	114	1.64
1904	72,020	123	1.7
1905	*73,540	120	1.63
1906	76,255	116	1.52
1907	78,707	114	1.44
1908	81,425	91	1.11
1909	84,237	101	1.19
1910	*88,926	87	.97
1911	92,048	101	1.09
1912	96,973	101	1.04
1913	100,877	99	.98
1914	104,949	109	1.03
1915	*102,971	101	.98
1916	106,365	91	.85

*Official census.

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TABLE SHOWING REPORTED CASES OF COMMUNICABLE DISEASES BY MONTHS—1916.

Diseases.	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Actinomycosis	....	....	....	....	....	....	....	....	....	....	....	....	....
Anterior Poliomyelitis	....	....	....	....	....	....	6	16	38	17	10	....	87
Anthrax	....	....	....	....	....	....	....	....	....	....	....	....	....
Asiatic Cholera	....	....	....	....	....	....	....	....	....	....	....	....	....
Cerebro - Spinal Meningitis	....	....	....	1	1	....	...	....	....	....	....	2	4
Chicken Pox	20	21	28	24	9	10	3	....	1	....	6	9	126
Diphtheria	20	10	16	15	9	4	10	7	5	30	31	19	176
Dog-bite (requiring anti-rabic treatment)	....	....	....	....	....	....	....	....	....	....	....	....	....
Dysentery:—													
a. Amebic	....	....	....	....	....	....	....	....	....	....	....	....	....
b. Bacillary	....	....	....	....	....	....	....	....	....	....	....	....	....
German Measles	3	1	3	4	9	1	1	1	1	....	1	....	25
Glanders	....	....	....	....	....	....	....	....	....	....	....	....	....
Hookworm Disease	....	....	....	....	....	....	....	....	...	....	....	....	...
Infectious Diseases of the Eye:—													
a. Ophthalmia Neonatorum	9	3	10	5	12	6	5	3	4	3	3	1	64
b. Suppurative Conjunctivitis	....	....	....	2	....	....	....	....	....	....	....	....	2
c. Trachoma	....	....	....	....	....	....	....	....	....	....	....	....	....
Leprosy	....	....	....	....	....	....	....	....	....	....	....	....	....
Malaria	....	....	....	1	....	1	....	....	....	....	....	1	[3
Measles	7	35	165	464	411	144	60	2	2	1	2	....	1,298
Mumps	15	13	24	40	20	9	8	2	....	3	2	2	138
Pellagra	....	....	....	....	....	....	....	1	....	....	....	....	1
Plague	....	....	....	....	....	....	....	....	....	....	....	....	....
Rabies	....	....	....	....	....	....	....	....	....	....	....	....	....
Scarlet Fever	21	18	31	37	26	16	14	6	6	17	21	27	240
Septic Sore Throat	....	....	....	....	....	....	1	....	....	....	....	....	1
Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	....
Tetanus	....	1	....	....	....	....	....	....	....	....	....	....	1
Trichinosis	....	....	1	1	....	....	....	....	....	....	11	....	13
Tuberculosis:—													
Pulmonary	11	12	11	20	8	8	16	18	8	13	9	18	152
Others	....	2	2	1	4	1	3	....	4	1	4	4	26
Typhoid Fever	3	....	....	....	1	....	5	8	1	3	7	2	30
Typhus Fever	....	....	....	....	....	....	....	....	....	....	....	....	....
Whooping Cough	14	18	44	12	7	6	9	2	15	....	3	2	132
Yellow Fever	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	128	134	330	627	517	206	141	66	85	88	110	87	2,514

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TABLE SHOWING REPORTED CASES OF COMMUNICABLE DISEASES, 1916, BY WARDS.

Diseases.	Wards.								
	1	2	3	4	5	6	7	8	Totals.
Actinomycosis	....	....	....	....	....	....	....	....	....
Anterior Poliomyelitis	11	19	2	11	8	4	16	16	87
Anthrax	....	....	....	....	....	....	....	....	....
Asiatic Cholera	....	....	....	....	....	....	....	....	....
Cerebro-Spinal Meningitis	....	2	....	....	....	....	....	2	4
Chicken Pox	18	31	12	19	11	8	9	18	126
Diphtheria	34	37	14	27	13	16	4	31	176
Dog-bite (requiring anti-rabic treatment)	....	....	....	....	....	....	....	....	....
Dysentery:—									
a. Amebic	....	....	....	....	....	....	....	....	....
b. Bacillary	....	....	....	....	....	....	....	....	....
German Measles	1	5	....	5	2	2	5	5	25
Glanders	....	....	....	....	....	....	....	....	....
Hookworm Disease	....	....	....	....	....	....	....	....	....
Infectious Diseases of the Eye:—									
a. Ophthalmia Neonatorum	4	14	1	26	5	5	2	7	64
b. Suppurative Conjunctivitis	....	2	....	....	....	....	....	....	2
c. Trachoma	....	....	....	....	....	....	....	....	....
Leprosy	....	....	....	....	....	....	....	....	....
Malaria	....	....	1	....	....	....	....	2	3
Measles	117	161	97	126	98	163	235	296	1,293
Mumps	3	8	18	12	34	19	10	34	138
Pellagra	....	1	....	....	....	....	....	....	1
Plague	....	....	....	....	....	....	....	....	....
Rabies	....	....	....	....	....	....	....	....	....
Scarlet Fever	25	46	22	25	25	21	27	49	240
Septic Sore Throat	....	....	....	....	....	....	....	1	1
Smallpox	....	....	....	....	....	....	....	....	....
Tetanus	....	....	....	....	....	....	....	1	1
Trichinosis	1	....	1	....	1	9	1	....	13
Tuberculosis:—									
Pulmonary	19	30	26	13	11	19	9	25	152
Other Forms	5	6	8	1	3	....	....	3	26
Typhoid Fever	5	2	3	3	2	6	6	3	30
Typhus Fever	....	....	....	....	....	....	....	....	....
Whooping Cough	7	12	10	2	5	38	34	24	132
Yellow Fever	....	....	....	....	....	....	....	....	....
Totals	250	376	215	270	218	310	358	517	2,514

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TABLE SHOWING REPORTED CASES AND DEATHS OF COMMUNICABLE DISEASES BY YEARS WITH POPULATION.

Diseases.	1912. 96,978		1913. 100,877		1914. 104,949		1915. *102,971		1916. 106,365	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Actinomycosis	....	....	....	....	1	....	....	1	....	....
Anterior Poliomyelitis	43	10	12	1	6	2	7	3	87	22
Anthrax	....	....	....	....	....	....	1	....	....	....
Asiatic Cholera	....	....	....	....	....	....	....	....	....	....
Cerebro-Spinal Meningitis	2	4	4	....	....	....	2	2	4	3
Chicken Pox	72	....	81	....	141	....	180	....	126	....
Diphtheria	181	15	191	16	139	13	142	10	176	18
Dog-bite (requiring anti-rabic treatment)	....	....	....	....	....	....	2	....	....	....
Dysentery:—										
a. Amebic	....	....	....	....	....	....	....	....	....	....
b. Bacillary	....	....	....	....	....	....	....	....	....	....
**German Measles	....	....	....	....	....	....	23	....	25	....
Glanders	....	....	....	....	....	....	....	....	....	....
Hookworm Disease	....	....	....	....	....	....	....	....	....	....
Infectious Diseases of the Eye:—										....
a. Ophthalmia Neonatorum	18	....	14	....	7	....	73	....	64	....
b. Suppurative Conjunctivitis	....	....	....	....	....	....	3	....	2	....
c. Trachoma	2	....	1	....	2	....	....	....	....	....
Leprosy	....	....	....	....	....	....	....	....	....	....
Malaria	....	....	....	....	....	....	2	....	3	....
Measles	598	9	617	9	190	9	611	3	1298	14
Mumps	....	....	....	....	3	....	135	....	138	1
Pellagra	....	....	....	....	....	....	....	....	1	1
Plague	....	....	....	....	....	....	....	....	....	....
Rabies	....	....	....	....	....	....	....	....	....	....
Scarlet Fever	126	2	181	3	87	1	117	1	240	3
Septic Sore Throat	....	....	....	....	....	....	3	3	1	4
Smallpox	....	....	....	....	....	....	....	....	....	....
Tetanus	....	....	....	....	1	1	....	1	1	1
Trichinosis	....	....	....	....	....	....	....	....	13	....
Tuberculosis (all forms)	166	101	125	99	178	109	173	101	....	....
Pulmonary	....	....	....	....	....	....	....	....	152	66
Other	....	....	....	....	....	....	....	....	26	25
Typhoid Fever	98	15	81	20	57	22	48	11	80	5
Typhus Fever	....	....	....	....	....	....	....	....	....	....
Whooping Cough	100	13	38	6	78	2	825	18	132	2
Yellow Fever	....	....	....	....	....	....	....	....	....	....
Totals	1363	169	1412	154	951	159	1847	154	2514	165

*Official census.
**Tabulated as measles until 1915.

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HEALTH DEPARTMENT HOSPITAL.

295 (205) cases were admitted to the different wards of the hospital during the year. The admissions for diphtheria represent 37% (51.7%) of the total number of cases reported, and 36.6% (35%) of scarlet fever cases. The case mortality from diphtheria was 9.1% (4.12%). Of the 6 deaths from diphtheria 3 were laryngeal and lived less than 24 hours after admission to the hospital. The other 3 deaths occurred in neglected septic cases. 2 (no) deaths occurred from scarlet fever. The diphtheria wards were used for cases of poliomyelitis, and during the months of July, August, September, and October, 43 cases were admitted with 6 deaths, giving a case mortality of 13.9%. All these deaths occurred within 24 hours after being admitted, and were respiratory in type. Of the 36 cases discharged, 8 recovered without paralysis, 16 were decidedly improved, and 12 slightly improved, as compared with the amount of paralysis on admission. No special treatment was given to the paralyzed muscles, as the cases were discharged at the end of four weeks, with a few exceptions.

5 cases of ophthalmia neonatorum were treated in the ophthalmia ward, with complete recovery in all cases; 16 cases of measles were admitted; 10 cases were treated during the year in which the original diagnosis was changed. The contagious wards of the hospital are not arranged for the proper separation of this variety of contagious diseases as has been repeatedly mentioned in previous yearly reports, and it has only been through the most competent management and attention to details that cross infections have not occurred in considerable numbers. 1 (0) case of scarlet fever developed diphtheria after two weeks in the hospital, and probably was infected after admission, although the method was not discovered. No diseases of contagious nature occurred during the year in any of the nurses, ward maids, or other attendants.

65 (61) cases of pulmonary tuberculosis were admitted during the year, 42 being males and 23 females. Very few of these patients are incipient or hopeful cases, as the present capacity of the wards has not permitted their admission. The number of males admitted averages about twice the number of females, and the beds of the men's ward have at times all been occupied, but there has always been a number of vacant beds in the women's ward.

The capacity of the hospital has been well tested during the year, and with the growth of the city, especially in apartment house life, where contagious diseases cannot be properly handled in many cases, there should not be any further delay in providing the city with suitable and

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sufficient accommodations for this class of diseases. The dormitory facilities are inadequate for the number of employees, and the temporary quarters now occupied for this purpose are needed by the Department of Charities. The kitchens, dining rooms, and facilities for storage of food and provisions are poorly located and not suitable for the amount of work which it is necessary to do in feeding the daily population of the hospital. If the city is compelled to increase the facilities of the hospital in caring for tuberculosis the coming year, the plans already worked out after a careful study of the future needs of the city and already approved by the proper State officials lend themselves in every particular to any requirements, either by State authority or the growing needs of the city, and should be carefully considered before any further makeshift arrangements for enlarged accommodations are undertaken. In the general plan of permanent improvement which is advocated in all other city departments, something should be done for protection of the public health in hospital construction, which will be a credit and a lasting benefit to the city.

CONTAGIOUS DISEASE WARDS.

Number of patients in hospital December 31, 1915,	20
Number of patients admitted during year,	227
Number of intubations for diphtheria,	10
Number of deaths following intubation,	2
Number of private patients admitted during year,	35
Number of physicians treating private patients,	22
Total number of days for diphtheria patients,	1,044
Average number of days for diphtheria patients,	16
Total number of days for scarlet fever patients,	3,246
Average number of days for scarlet fever patients,	36.9
Total number of days for other diseases,	1,534
Total number of days for all diseases,	5,824
Number of deaths from diphtheria,	6
Number of deaths from scarlet fever,	2
Number of deaths from other diseases,	9
Total number of deaths from all diseases,	17

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PATIENTS ADMITTED BY MONTHS

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Diphtheria	5	5	6	22	7	1	1	1	1	5	10	7	66
Scarlet Fever	7	11	9	7	5	2	7	6	4	7	9	11	86
Ophthalmia Neonatorum	1	2	1	1	—	.		—			.		5
Others		2	2	1	1	1	1	.	—	.	1	1	11
Mixed Infections	.	1	..	..	..	..	..	..	..	..	..	..	1
Anterior Poliomyelitis		.	.	..	..	.	4	11	15	7	..	..	42
Measles		.	5	6	2	2	..	..	..	..	..	..	16
Totals	13	21	21	22	16	6	13	17	28	19	20	19	227

AGE OF PATIENTS.
1916.

Age	Under 1		1-4		5-9		10-19		20-29		30-39		40-49		Over 50		Totals
Sex	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Diphtheria	..	..	9	6	12	14	2	12	5	3	..	1	..	2	..	..	66
Scarlet Fever	..	..	13	12	10	17	6	11	4	6	3	2	..	2	..	..	86
Ophthalmia Neonatorum	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Others	2	..	2	1	..	1	1	1	1	1	..	..	1	..	..	..	11
Mixed Infections	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Anterior Poliomyelitis	1	.	17	10	7	3	2	..	..	1	..	1	..	..	..	..	42
Measles	..	1	3	1	1	6	..	2	..	2	..	..	..	..	..	..	16
Totals	6	3	44	30	30	41	11	26	11	13	3	4	1	4	..	..	227

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TUBERCULOSIS WARDS.

Patients in hospital December 31, 1915,	20
Patients admitted during year,	65
Number discharged with disease arrested,	1
Number discharged improved,	15
Number discharged, condition not improved,	8
Number transferred to other institutions,	12
Number discharged for refusal to obey hospital rules,	2
Number of deaths,	23
Total number of days for patients,	7,779
Average number of days per patient,	91.5
Number condition improving December 31, 1916,	11
Number condition not improving,	13
Number of patients in hospital December 31, 1916,	24

AGE OF PATIENTS.

Age	Under 1 year		1-4		5-9		10-19		20-29		30-39		40-49		Over 50		Totals
Sex	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Tuberculosis	..	..	..	..	..	..	7	4	8	8	17	6	7	5	3	..	65

PATIENTS ADMITTED BY MONTHS.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Tuberculosis	6	5	5	9	4	2	9	5	7	3	4	6	65

DISPENSARY FOR TUBERCULOSIS.

The Dispensary for Tuberculosis was opened in June, and is centrally located at 137½ State street. It is furnished and equipped in compliance with the requirements of the State Department of Health. Clinics are held on Monday, Wednesday, and Friday of each week at 4 P.M. and on Wednesday evening at 8 P.M. Four physicians, a nurse, and a clerk are in attendance, and it is hoped to make the dispensary a decided factor in lessening the amount of tuberculosis in the city, by affording advice, treatment, and oversight of all patients afflicted with the disease. The services of the dispensary are offered, without charge, to any person without medical attention, or unable to employ the services of a physician. All cases reported to the department are investigated from the dispensary

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PATIENTS ADMITTED BY MONTHS.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Totals
Diphtheria	6	5	4	13	7	1	1	1	1	5	14	7	65
Scarlet Fever	7	11	9	12	5	2	7	4	4	7	9	11	88
Ophthalmia Neonatorum	1	2	1	1	..	..	..	..	..	..	..	..	5
Others	..	2	2	1	1	1	1	..	..	..	1	1	10
Mixed Infections	..	1	..	..	..	..	..	..	..	..	..	..	1
Anterior Poliomyelitis	..	..	..	..	..	..	4	12	19	7	..	..	42
Measles	..	..	5	6	3	2	..	..	..	..	..	..	16
Totals	14	21	21	33	16	6	13	17	24	19	24	19	227

AGE OF PATIENTS.
1916.

Age	Under 1		1–4		5–9		10–19		20–29		30–39		40–49		Over 50		Totals
Sex	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Diphtheria	..	..	9	6	12	14	2	12	5	3	..	1	..	2	..	..	66
Scarlet Fever	..	..	13	12	10	17	6	11	4	6	3	2	..	2	..	..	86
Ophthalmia Neonatorum	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Others	2	..	2	1	..	1	1	1	1	1	..	..	1	..	..	..	11
Mixed Infections	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Anterior Poliomyelitis	1	..	17	10	7	3	2	..	..	1	..	1	..	..	..	..	42
Measles	..	1	3	1	1	6	..	2	..	2	..	..	..	..	..	..	16
Totals	6	3	44	30	30	41	11	26	11	13	3	4	1	4	..	..	227

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TUBERCULOSIS WARDS.

Patients in hospital December 31, 1915,	20
Patients admitted during year,	65
Number discharged with disease arrested,	1
Number discharged improved,	15
Number discharged, condition not improved,	8
Number transferred to other institutions,	12
Number discharged for refusal to obey hospital rules,	2
Number of deaths,	23
Total number of days for patients,	7,779
Average number of days per patient,	91.5
Number condition improving December 31, 1916,	11
Number condition not improving,	13
Number of patients in hospital December 31, 1916,	24

AGE OF PATIENTS.

Age	Under 1 year		1-4		5-9		10-19		20-29		30-39		40-49		Over 50		Totals
Sex	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Tuberculosis	..	..	..	..	..	..	7	4	8	8	17	6	7	5	3	..	65

PATIENTS ADMITTED BY MONTHS.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Tuberculosis	6	5	5	9	4	2	9	5	7	3	4	6	65

DISPENSARY FOR TUBERCULOSIS.

The Dispensary for Tuberculosis was opened in June, and is centrally located at 137½ State street. It is furnished and equipped in compliance with the requirements of the State Department of Health. Clinics are held on Monday, Wednesday, and Friday of each week at 4 P.M. and on Wednesday evening at 8 P.M. Four physicians, a nurse, and a clerk are in attendance, and it is hoped to make the dispensary a decided factor in lessening the amount of tuberculosis in the city, by affording advice, treatment, and oversight of all patients afflicted with the disease. The services of the dispensary are offered, without charge, to any person without medical attention, or unable to employ the services of a physician. All cases reported to the department are investigated from the dispensary

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and notices sent to the physician reporting the case, stating the desire of the dispensary management to co-operate and assist in any way possible in the care and treatment of these patients.

Educational and preventive work also forms a part of the program of the dispensary, and a general oversight of all patients returning from hospitals will be maintained. The amount of work performed during the first six months indicates the opportunity which presents itself for systematic development, and it is confidently believed that its value to the community at large will fully repay for the time and money expended in maintaining it. It should not in any sense be considered a charitable undertaking by any one who might otherwise avail himself of its advantages, for it must be remembered, that recovery from tuberculosis is a slow process, requiring time, patience, and determination to follow instructions. These things can often be better accomplished through such an agency as a dispensary, than from the intermittent and conflicting advice of well-meaning friends, or others having no special interest in the eradication of the disease.

DISPENSARY FOR TUBERCULOSIS.

Report from June 1, to December 31, 1916.

Number new patients,		80
Number not tubercular,		44
Number visits to dispensary, new and old patients,		124
Number patients under dispensary supervision December 31, 1916,		94
Number positive sputum examinations,		17
Number negative sputum examinations,		44
Number first visits made at homes	Nurse,	83
	Visitor,	173
Number subsequent visits made at homes	Nurse,	761
	Visitor,	579
Number visited unable to attend clinic	Nurse,	23
	Visitor,	33
Number visits made on above	Nurse,	86
	Visitor,	70
Number patients improving,		47
Number patients not improving,		47
Number dispensary patients admitted to Health Department hospital,		22
Number dispensary patients admitted to other hospitals,		7
Number patients returned from above, reporting to dispensary,		24
Number moved out of town (not to Sanitarium or Hospital),		17
Number deaths of dispensary patients,		23

REMARKS: In the past 7 months 9 changed diagnosis.

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LABORATORIES.

The total number of examinations made in the bacteriological laboratory was 1,981 (1,457), diphtheria 1,451 (1,040), tuberculosis 452 (323), and typhoid fever 78 (94). The variations in the amount of work performed from year to year are due to the prevalence of the diseases for which laboratory diagnoses are available. The central location of the laboratory renders it easily accessible, and the outer office is always open, where antitoxin and the various outfits required in collecting specimens for examination can be obtained. The value of the laboratory depends upon the use which is made of its facilities, which are free to the entire medical profession. It is especially desirable that cultures be made from all suspicious sore throats, as the laboratory diagnosis of diphtheria is much more reliable than the clinical diagnosis, and many mild cases will in this way be detected, which would otherwise not be recognized, with consequent unnecessary spread of the disease.

DIPHTHERIA.

MONTHS.	DIAGNOSIS.		RELEASE.		TOTAL Examinations
	Positive.	Negative.	Positive.	Negative.	
January,	18	68	24	69	179
February,	6	67	7	28	108
March,	17	109	2	43	171
April,	17	99	7	23	146
May,	7	77	2	26	112
June,	3	30	3	15	51
July,	10	48	1	8	67
August,	6	30	0	19	55
September,	4	29	0	6	39
October,	30	55	1	29	115
November,	34	105	21	56	216
December,	15	116	8	53	192
Totals,	167	833	76	375	1,451

16.7% positives.

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TYPHOID FEVER.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Positive	2	0	0	0	0	3	1	7	2	0	2	2	19
Negative	4	4	1	2	0	6	5	5	4	2	7	6	46
Doubtful	1	3	0	0	0	0	3	1	2	1	1	1	13
Totals	7	7	1	2	0	9	9	13	8	3	10	9	78

24.3% positives.

TUBERCULOSIS.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.	Totals
Positive	7	12	13	8	11	5	15	13	11	5	5	11	116
Not found	20	30	30	32	31	28	18	21	19	21	38	48	336
Totals	27	42	43	40	42	33	33	34	30	26	43	59	452

25.7% positives.

INFANT MORTALITY.

311 (276) deaths occurred in children under one year of age during the year. The available birth returns are 3,469 (3,268), which gives an infant mortality of 89.65 (84.45) per 1,000 births. 131 (115) stillbirths occurred.

An investigation of the increased mortality rate emphasizes the statements made in previous reports. 115 (99) died within one week after birth from congenital debility, malformations, and prematurity; 74 (62) from diarrhœa and enteritis; 10 from different contagious diseases. These figures indicate that progressive reduction in infant mortality below a certain point, from gastro-intestinal troubles, due to improper feeding, cannot be expected, but the reduction will be more apt to come through the intensive work which may be accomplished in what is called prenatal nursing and care. This work has a definite place in the scheme of protecting the public health, and the different agencies devoted to this work will at all times receive the hearty co-operation of the department. With the efforts of the Baby Feeding Association in providing milk adapted to the age of the child, and with the amount of milk available in this

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city in every way suitable for baby feeding, the number of deaths occurring in bottle-fed babies will, in a great measure, be controlled by the intelligence, care, and watchfulness of the parents. These latter features must be recognized in all successful efforts to reduce infant mortality.

INFANT MORTALITY—1916.

Months.	Total Under 1 year	AGES.											
		Under 1 day	1-2 days	2-3 days	3 days 1 week	1-2 weeks	2-3 weeks	3 weeks 1 month	1-2 months	2-3 months	3-6 months	6-9 months	9-12 months
January	28	6	2	1	3	1	1	..	..	2	5	2	..
February	27	6	1	..	2	1	3	3	2	2	2	3	2
March	30	6	1	4	1	2	2	2	2	1	4	3	2
April	22	3	1	..	1	5	2	..	3	1	4	1	1
May	23	6	..	..	3	1	..	1	1	3	2	4	2
June	11	3	..	..	..	3	..	..	1	1	1	..	2
July	20	4	..	..	1	2	..	2	..	..	3	5	3
August	42	6	1	2	1	1	1	4	3	7	9	4	3
September	29	6	..	2	..	2	2	..	3	1	3	3	2
October	29	9	3	2	..	..	..	..	1	1	9	2	2
November	28	6	3	..	3	2	..	1	3	2	5	3	..
December	27	9	1	1	5	..	4	..	2	2	2	..	1
Totals	311	70	13	12	20	20	15	13	21	23	54	30	20
Males	188	45	8	8	10	12	10	6	13	10	40	15	11
Females	123	25	5	4	10	8	5	7	8	13	14	15	9
Totals	311	70	13	12	20	20	15	13	21	23	54	30	20
Classification.													
Measles	5	..	..	..	..	..	..	..	..	..	2	1	2
Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough	1	..	..	..	..	..	..	..	..	..	1	..	..
Diphtheria	1	..	..	..	..	..	..	..	..	1	..	..	..
Influenza	1	..	..	..	..	..	..	..	..	..	..	1	..
Tuberculosis (Pul.)	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis	2	..	..	..	..	..	1	..	..	1	..	..	..
Anterior Poliomyelitis	2	..	..	..	..	..	1	..	..	..	1	..	..
Convulsions of Infants	3	..	..	..	..	1	..	..	..	..	1	..	1
Acute Bronchitis	4	..	..	..	..	..	1	..	..	1	..	1	1
Broncho-Pneumonia	30	..	..	1	..	..	..	3	4	4	9	5	4
Pneumonia	6	..	..	..	..	..	..	1	..	..	4	1	..
*Diarrhœa and Enteritis	74	..	..	..	2	1	2	2	9	11	22	15	10
Congenital Malformations	39	9	1	2	7	6	3	2	1	2	4	2	..
Congenital Debility	11	1	1	..	..	1	2	1	2	1	2	..	..
Premature	82	44	9	5	6	6	5	3	2	1	1	..	..
Other Diseases	50	16	2	4	5	5	..	1	3	1	7	4	2
Totals	311	70	13	12	20	20	15	13	21	23	54	30	20

*Bottle fed, 59; breast fed, 12; both, 3.

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INFANT MORTALITY.

Maternal Nativity and Ward Residence.

Nativity of Mother.	WARDS.								
	1	2	3	4	5	6	7	8	Totals.
Massachusetts	17	13	6	22	4	2	12	11	87
Other States	7	11	7	9	1	5	5	13	58
Russia	3	32	..	..	..	..	..	2	37
Italy	1	1	20	1	4	6	..	1	34
Austria	1	9	1	..	..	..	..	11	22
Germany	1	..	..	..	..	..	..	..	1
Canada	4	3	..	1	..	1	1	3	13
Ireland	4	7	..	6	..	3	..	4	24
England	1	..	..	1	..	..	..	..	2
Greece	..	1	3	..	..	..	..	1	5
Scotland	..	..	..	2	1	..	1	2	6
Syria	..	1	..	..	..	..	..	..	1
Austria Poland	1	..	..	..	..	..	..	1	2
Russia Poland	..	8	..	..	..	..	..	1	9
Turkey	..	1	..	..	..	..	..	1	2
Sweden	2	..	..	..	1	..	..	..	3
Portugal	..	1	..	..	..	..	..	..	1
Nova Scotia	..	..	..	..	..	..	1	1	2
Unknown	..	1	..	..	1	..	..	..	2
Totals	42	89	37	42	11	18	20	52	311

INFANT MORTALITY RATE.

Years.	Births, excepting stillbirths.	Deaths under 1 year.	Rate deaths per 1000 births.
1911	2,582	250	96.82
1912	2,876	282	98.05
1913	2,964	295	99.52
1914	3,077	284	92.29
1915	3,268	276	84.45
1916	*3,469	311	89.65

*Estimated.

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MEDICAL SUPERVISION OF SCHOOLS AND CHILD WELFARE.

The work of the medical inspectors has been conducted along the same general lines as in previous years. The amount of time devoted by the inspectors to their various duties increases from year to year, owing to the number of pupils in the public schools and to the natural development of the scope of supervision. An effort has been made to complete the yearly physical examination before the mid-year promotions take place, but it is becoming more difficult to do this, as the pupils increase in number and new schools are established. The chief ailments or affections can be determined by inspection, and represent the larger percentage of variations from normal conditions which are brought to the attention of the inspectors. Having yearly physical records of all children since 1912, it was decided to limit the physical examination to children entering school for the first time, and for all other pupils make a room inspection, eliminating the time required in taking the height, weight, and chest measurement of each pupil. This room inspection will be made at the opening of the fall session and repeated after the mid-year promotions. Especial attention will be given on the second inspection to all children found with any defects in the fall examination. The time gained in this manner is valuable, not only to the inspector, but also to the school nurses, who are thus enabled to follow up these different conditions and institute measures for the relief and care more promptly. Children suffering from any acute illness of any description receive the necessary physical examination at any time, and in the general room inspection also receive special examination. If this change proves satisfactory the full physical examination will only be repeated at intervals of a number of years.

The number of minor ailments which occurred during the year does not show any decided change, and may be expected to continue in about the same proportion. The prompt attention given to these cases has a definite result in improving school attendance, and at the same time is beneficial to the general health and welfare of the pupils.

Some means should be devised for more definite work in the matter of oral hygiene, for the large class of children with defective teeth, enlarged tonsils, and adenoids. A considerable number of children with enlarged tonsils has been taken care of through the money available from the Smith Fund, but a large amount of work remains to be done in this special direction. Defective teeth are recognized as a definite cause of faulty development, ill health, and serious infection, and with 1,500 to 2,000 children, whose parents are unable to employ the services of a

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dentist, there is a growing need for the establishment of a dental dispensary, which shall at least perform the simpler operations necessary to preserve the teeth.

YEARLY PHYSICAL EXAMINATION OF SCHOOL CHILDREN.

September, 1915—July, 1916.

Number of pupils in rooms examined,	15,965
Number of pupils examined,	15,449
Number of pupils with no defects,	5,445
Number of pupils, nervous affection,	162
Cardiac diseases, valvular,	252
Orthopedic defects,	247
Glandular enlargement,	2,393
Tuberculosis,	5
Defective teeth,	7,115
Enlarged tonsils,	3,320
Adenoids,	2,632

LIST OF DISEASES REFERRED TO MEDICAL INSPECTORS OF SCHOOLS FOR INSPECTION AND DIAGNOSIS TABULATED FROM WEEKLY REPORTS FOR YEAR ENDING DECEMBER 31, 1916.

	1915	1916
I.—Infectious Diseases.		
Diphtheria,	2	8
Scarlet Fever,	6	4
Measles,	66	140
Mumps,	160	94
Whooping Cough,	53	29
Chicken Pox,	132	72
Tuberculosis,	1	1
Influenza,	21	18
Other Diseases,	14	12
II.—Diseases of Oral and Respiratory Tract.		
Acute Pharyngitis,	319	501
Acute Tonsilitis,	166	186
Chronic Hypertrophic Tonsils,	160	364
Acute Rhinitis,	152	134
Defective Nasal Breathing,	31	82
Adenoids,	63	127
Other Diseases,	78	39
III.—Diseases of Eye and Ear.		
Acute Otitis Media,	25	20
Chronic Otitis Media,	23	27

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Other Diseases of Ear (defective hearing excluded),	19	15
Blepharitis,	44	46
Acute Conjunctivitis,	89	53
Other Diseases of Eye (defective visions excluded),	108	94
IV.—Diseases of the Skin.		
Acne,	41	15
Boils,	73	71
Dermatitis,	122	165
Eczema,	197	178
Erythema,	31	26
Herpes,	166	177
Impetigo Contagiosa,	666	649
Pediculosis,	449	482
Scabies,	80	71
Tinea,	37	32
Other Affections,	376	329
V.—Miscellaneous.		
Abscesses and Ulcers,	152	108
Contusions and Injuries,	511	506
Cardiac Diseases,	27	37
Fever,	33	40
Gastric and Intestinal,	142	112
Malnutrition,	45	131
Pulmonary Disease,	30	16
Tubercular Lymph Nodes,	14	26
Other Diseases not classified,	699	1,120

Summary.

Specific and Infectious Diseases,	455	378
Oral and Respiratory Diseases,	969	1,433
Diseases of the Ear,	67	62
Diseases of the Eye,	241	193
Diseases of the Skin,	2,238	2,195
Miscellaneous Diseases,	955	976
Unclassified,	699	1,120
No disease found,	1,306	1,242
Number of first examinations,	6,930	7,599
Number of re-examinations,	4,369	3,913
Total number of examinations,	11,299	11,512
Vaccinations,	1,495	478
Total number sent home,	608	647

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LIST OF MEDICAL INSPECTORS OF SCHOOLS.

DR. W. H. CHAPIN, Central High, Commercial High, Technical High, State Street Grammar, School Street, and East Union Street.
DR. M. W. HARRINGTON, I. O. Primary and Grammar, Sixteen Acres, Five Mile Pond, and Rushville.
DR. J. P. HILLARD, Kensington Avenue, White Street, Boston Road, and Forest Park Portable.
DR. W. A. HOSLEY, Sumner Avenue, Worthington Street, Forest Park, Vocational, and Dry Bridge.
DR. G. T. LAMARCHE, St. Joseph, St. Aloysius, I. O., St. Matthews, I. O., Immaculate Conception, I. O.
DR. U. LABELLE, Charles Street, Glenwood, Brightwood, Armory Street.
DR. R. B. OBER, Buckingham, Tapley, and Homer Street.
DR. T. F. REARDEN, Sacred Heart, St. Michael, Holy Family, Holy Name.
DR. H. RITTER, Carew Street, Jefferson Avenue, and Hooker.
DR. A. G. RICE, Chestnut Street and Lincoln.
DR. E. T. SMITH, Acushnet Avenue and Central Street.
DR. C. E. STREET, Strickland, Barrows, Alden Street, and Eastern Avenue.
DR. E. J. SWEENEY, Howard Street and William Street.

SCHOOL NURSES.

The additional school nurse provided for in the appropriation became available with the opening of the fall session of schools and at the present time all the elementary graded schools in this city are provided with nurses to carry on and develop the work of medical supervision which began in this city in 1907. School nurses were first employed in 1913 and time enough has now elapsed to see what results are being obtained in the general improvement in health and well-being of the children. Minor ailments and affections, such as pediculosis, scabies, impetigo, and other skin affections, are under constant observation and treatment as required and exclusions for these causes are reduced to a minimum. All children absent from school, on account of illness, are visited, and such action taken or advice given as may be necessary to insure proper medical care or other attention. Visits are made during the continuance of the illness and needed relief obtained from different sources or agencies.

Home conditions are tactfully dealt with and improvements brought about, which affect not only the children but the health of the entire family. All vaccinations performed by the medical inspectors are taken care of until any danger of infection is passed. Visits are made upon all parents whose children, upon examination by the medical inspectors, are found to be affected with diseases or conditions retarding their progress

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in school. Especial attention is given to enlarged tonsils, adenoids, defective eyesight, or hearing, and a large amount of work has been done in this direction.

It would be impossible to mention in detail the opportunities which are presented through the accurate information obtained of the living conditions, by these frequent visits, but the improvement in the general appearance and cleanliness of the school children is noticeable, as well as a marked change for the better in many of the homes.

REPORT OF SCHOOL NURSES FOR THE YEAR ENDING DECEMBER 31, 1916.

	No.	Cured.	Under Observation.	Refused Treatment	Other Car Moved.
Skin diseases,	800	767	33		
Parasitic affections,	749	310	390	2	47
Chronic enlarged tonsils,	1,367	289	949	11	118
Adenoids,	1,245	287	829	11	118
Defective vision,	547	208	301	1	37
Other eye affections,	163	152	9		2
Defective hearing,	64	16	31		17
Tuberculous disease,	6	1	4		1
Heart disease,	40		12		28
Orthopedic,	14		11		3
Defective teeth, etc.,	1,386	177	1,200		9
Miscellaneous,	1,558	1,471	66		21
Total,	7,939	3,678	3,835	25	401

New cases visited,	2,131
Total visits, new and old,	4,738
Total treatments at home,	378
Total treatments at school,	4,907
Inspections (school),	14,307
First aid and dressings (school),	777
Consultations at schools,	109
Visits to Union Relief,	17
Visits to Charities,	16
Visits to M. D., Hospital, etc.,	119
Exclusions, Chicken Pox,	25
Exclusions, Measles,	86
Exclusions, Mumps,	17
Exclusions, Diphtheria,	10
Exclusions, Scarlet Fever,	14
Exclusions, Whooping Cough,	13

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HOME HELPERS' LEAGUE.

The active work of the league in the different schools is confined to the vacation period during the summer months, and is under the special charge of the school nurses. The interest in the weekly meetings is maintained by talks and demonstrations on the care and feeding of the baby, personal hygiene, care of the teeth, and similar subjects having a bearing on the preservation of health. An interesting feature was the voluntary organization by the members of the league of small committees who undertook the inspection of yards and grounds on the streets where they lived, and if their efforts were unsuccessful in securing improvement, reports were made to the department.

Talks and demonstrations at meetings, June, July, August,	72
Cases of sick babies and other ailments reported by members,	46
Visits made on cases reported by members,	80
Whooping Cough cases reported,	5
Measles cases reported,	3
Poor sanitary condition reported by members,	82
Visits made to doctors with children,	5
Referred to Union Relief Association,	10

FOOD INSPECTION.

Milk.

The milk industry has been in an unsettled condition for some time, due to various reasons, a few of which may be briefly mentioned. Efforts are made at each session of the Legislature to enact additional laws pertaining to the milk business, most of them uncalled for and of little value. State control of the industry is a matter of continual agitation, notwithstanding that, for the great majority of towns and cities in the State, local control would be more satisfactory to those concerned in this industry, as the business is local in nature. Disagreement between producers and dealers has become acute as to the division of the amount received from the consumer. Each party to the controversy claims there is but little profit in the business, with the evidence at present in favor of the producer. The producer is rapidly procuring definite knowledge as to the cost of producing a quart of milk, and is acting accordingly. The dealer recognizes the nature of the product handled, and the increasing distance from which the supply is obtained, along with the extreme care which is necessary in order to deliver milk to the consumer in a sanitary state, while the consumer realizes that he is the one who ultimately pays the bills.

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Observation and familiarity with the various aspects of the milk industry lead to the opinion that the solution of the "Milk Problem" does not rest on more legislation or additional rules and regulations, which in their execution retard the proper expansion of an industry of the largest magnitude and importance, and which is second to none other in the amount of capital invested.

There are many things which are self-operative in the protection of a milk supply and which are necessary for the successful outcome of the milk industry, in fully as large a degree as in any other business. The relative profit in operating a farm for dairy purposes or for other products, along with the value of the land so used, is an important factor and determines often the distance of the source of supply. Competition and facilities for handling milk in large quantities in an approved sanitary manner can be depended upon to gradually eliminate the careless dealer who does not respond to the demand for clean milk.

Consistent, regular supervision, with fair treatment to the different interests concerned, will improve the conditions surrounding and interfering with sanitary milk in a most satisfactory manner, especially when it is understood that a square deal is the rule of the supervising authority, and that co-operation is the end in view with resulting advantage to all concerned.

The food value of milk is being more fully appreciated by the consumer, and it is in a large measure within his power to demand and obtain milk which is pure and always suitable for consumption. Definite information as to the quality and purity of the milk handled by any dealer in the city, can always be obtained at the milk laboratory, and it is entirely the fault of the consumer if he does not avail himself of this information and secure milk from the best source. An insistent demand by the consumer will, in a short time, have its effect on both producer and dealer, and the supply will be forthcoming in this business, just as it is in any other industry which depends on the patronage of the public for its success. Self-interest can also be depended upon to regulate and improve many conditions surrounding the milk industry, and should not be overlooked by those who are really interested in bringing about desired improvements. Wonderful progress has been made in this direction during the past few years. The final delivery of a quart of milk to the consumer, transported long distances, clean, sweet and cold, in a sanitary package and pasteurized to prevent contamination by disease organism, calls for much praise and admiration for the manner in which the response is being made for the proper handling of such a perishable food product.

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12 dealers have discontinued business during the year; 6 small routes have been taken over by large dealers; and 40 dairies discontinued sending milk to Springfield. There are 57 small producers with less than 20 quarts a day. 315 (302) dairies were inspected once during the year, 293 (244) twice, and 63 (66) three times. 60% of the milk used in Springfield is pasteurized, and is handled by 6 dealers whose plants are properly equipped with modern machinery for this purpose. 90% of the milk is sold in bottles, the remaining 10% is sold as loose milk, chiefly in the Indian Orchard district of the city and to hotels and institutions for cooking purposes.

The grading of milk into different classes according to the bacterial content is receiving considerable attention, with the expectation that the consumer will then know the quality and the purity of the milk which he receives, and also have the privilege of buying the grade of milk desired at a corresponding difference in price.

In order to demonstrate in a small way the changes which will occur from time to time in the product of any dairy, with all conditions surrounding its production and handling remaining the same, 33 dairies were selected, fairly representing the different grades of milk consumed in this city, for purpose of examination. Samples of milk were taken for 12 months from these dairies, and the results of chemical and bacterial examination recorded in the table which appears in this report. The wide variations in bacterial content, as well as lesser variations in fats and total solids, are interesting features of the table. The uniformity of solids not fat are worthy of mention as corroborating the statement made by others as to their uniformity under all conditions. The temperature of the milk at all times has a decided bearing on the bacterial counts, and the increase in these numbers occurred during the summer months. These variations are more evident in the monthly record of each producer.

From this limited observation of average market milk during the time mentioned, the assertion is not by any means proven that graded milk furnishes a guarantee as to its quality or purity, and along with the indifferent success which is being obtained where A, B, and C milk is used, this new departure can well be left for its voluntary adoption by those who are not satisfied with the present methods in use for protecting their milk supply.

The National Dairy Show, which was held here in the month of October, under the auspices of the Eastern States Exposition, afforded every one interested in the milk industry an unusual opportunity to

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become acquainted with the most modern ideas and methods pertaining to the production and handling of milk, and from the great variety of exhibits by the allied interests every producer or dealer could find something suitable to his needs, which would add to the efficiency of methods already employed. The interest manifested in the exhibits will, without doubt, result in a definite improvement in methods, and serve to stimulate the entire milk industry. The Eastern States Exposition deserves much credit for its success in bringing the Dairy Show to Springfield and affording such extensive facilities for its accommodation.

In the yearly State clean milk contest conducted by the State Dairy Bureau, producers sending milk to Springfield won prizes in the different classes, as follows: Superior merit class, 13 prizes; Merit class, 20 prizes; Junior class, 5 prizes; Employees class, 5 prizes. 20 received honorable mention in the different classes. About $500 was also received by Springfield producers.

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TABLE SHOWING VARIATIONS IN COMPOSITION AND BACTERIA COUNTS OF MARKET MILK FROM 33 PRODUCERS' SAMPLES TAKEN AND EXAMINED FOR 12 CONSECUTIVE MONTHS.

No.	Temperature			Total Solids, %			Solids not Fat, %			Fats, %			Bacteria per c. c.	
	High	Low	Av'ge	High	Low	Av'ge	High	Low	Av'ge	High	Low	Av'ge	High	Low
1	62	36	52	13.26	11.48	12.70	9.35	8.28	8.83	4.50	3.20	3.92	2,500,000	10,000
2	63	36	52	14.25	12.30	12.95	9.36	8.32	8.79	5.25	3.60	4.22	5,500,000	50,000
3	64	38	52	13.30	11.72	12.45	9.00	8.27	8.56	4.30	3.15	3.80	3,000,000	60,000
4	64	38	53	12.95	11.85	12.47	9.05	8.32	8.61	4.60	3.25	3.86	1,600,000	60,000
5	62	37	53	13.10	11.81	12.14	8.86	8.16	8.54	4.70	3.05	3.60	2,500,000	60,000
6	58	36	47	13.68	11.19	13.38	9.28	8.09	8.72	4.70	3.10	3.84	345,000	10,000
7	60	36	49	13.80	11.37	12.94	9.40	8.45	8.90	4.55	2.90	4.04	360,000	10,000
8	60	36	48	13.41	11.36	12.28	9.06	8.15	8.56	4.35	3.10	3.72	300,000	12,000
9	60	36	48	13.10	11.28	12.40	9.00	8.47	8.63	5.20	2.70	3.80	250,000	8,300
10	64	37	49	13.90	11.98	12.37	9.22	8.48	8.70	4.90	3.40	4.10	160,000	7,000
11	52	38	44	14.51	12.68	13.26	9.57	8.38	8.80	5.10	3.80	4.30	710,000	2,600
12	52	39	46	13.87	11.02	12.70	9.31	8.47	8.80	5.10	2.55	3.80	610,000	6,000
13	50	39	44	12.98	12.15	12.51	9.06	8.55	8.73	4.15	3.60	3.84	620,000	9,900
14	60	38	47	13.30	11.41	12.31	8.80	8.06	8.55	4.50	3.40	3.76	780,000	50,000
15	53	38	45	13.30	11.98	12.50	9.00	8.08	8.64	4.30	3.45	3.85	2,500,000	5,300
16	66	37	53	13.39	10.57	12.19	9.09	8.15	8.54	4.30	2.30	3.65	500,000	3,900
17	66	36	51	13.07	11.41	12.40	9.02	8.51	8.75	4.10	2.90	3.65	260,000	2,000
18	66	36	53	13.70	11.02	12.56	9.13	7.70	8.64	4.55	2.55	3.90	1,080,000	9,900
19	68	41	50	12.84	10.75	12.54	8.99	8.00	8.52	4.00	2.75	3.57	3,000,000	20,000
20	68	38	54	12.59	11.35	12.14	9.09	8.25	8.66	3.70	3.10	3.47	1,000,000	10,700
21	62	36	51	13.16	10.42	12.41	9.05	8.25	8.60	4.50	3.15	3.89	1,500,000	30,000
22	66	37	52	13.19	11.72	12.33	9.09	8.40	8.61	4.35	3.20	3.55	460,000	40,000
23	62	35	53	12.60	11.40	12.24	8.85	8.10	8.60	4.00	3.30	3.66	3,500,000	990,000
24	66	36	52	13.08	10.78	12.16	9.08	8.14	8.62	4.05	2.40	3.55	2,300,000	9,000
25	68	38	53	12.55	11.76	12.09	8.70	8.16	8.48	4.05	3.10	3.72	2,500,000	10,000
26	46	36	40	13.37	12.04	12.70	9.22	8.61	8.82	4.50	3.35	3.88	50,000	700
27	68	38	54	13.76	11.48	12.30	9.91	8.13	8.60	4.00	2.90	3.65	1,900,000	10,000
28	66	38	54	12.91	10.59	11.90	9.00	8.15	8.54	4.10	1.95	3.31	2,000,000	10,000
29	72	37	55	12.25	11.72	12.38	8.98	8.42	8.70	4.50	3.30	3.67	1,500,000	20,000
30	66	38	53	13.05	11.72	12.20	8.75	8.40	8.50	4.30	3.20	3.69	760,000	2,300
31	66	38	53	12.75	11.70	12.34	9.00	8.35	8.62	4.00	3.25	3.62	2,000,000	130,000
32	42	37	39	13.89	11.61	12.61	9.07	8.44	8.73	4.30	3.10	3.88	6,100	400
33	62	38	48	15.20	13.40	14.15	9.70	8.15	9.16	5.50	4.00	4.86	1,200,000	2,500

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SUMMARY OF WORK PERFORMED IN THE DAIRY DIVISION.

Estimated number of quarts sold daily in Springfield,	65,000
Estimated number of quarts sold daily in city from near-by dairies,	62,500
Estimated number of quarts sold daily in city from New York State and Vermont dairies,	2,500
Estimated number of quarts of cream sold in city daily,	5,000
Number of licenses issued for the sale of milk,	718
Number of licenses and registrations for sale of oleomargarine,	95
Number of near-by dairies sending milk to Springfield,	647
Number of New York and Vermont dairies sending milk to Springfield,	133
Number of changes made by dealers in the source of supply during 1916,	345
Number of dairy milk houses built during 1916,	29
Number of dairy barns built during 1916,	5
Number of dairy barns remodeled during 1916,	22
Number of inspections made of dairies,	1,080
Number of inspections made of stores and restaurants,	729
Number of inspections made of milk wagons and rooms,	910
Number of inspections (total),	2,719
Number of samples of milk collected at milk plants,	1,484
Number of samples of milk collected at trains,	73
Number of samples of milk collected at stores,	336
Number of samples collected from wagons,	369
Number of samples brought to laboratory,	783
Number above standard,	2,374
Number below standard,	631
Number below in solids and fats,	436
Number below in solids,	631
Number below in fats,	436
Number of samples analyzed (total),	3,005
Number of samples of skimmed milk analyzed,	10
Number of samples of buttermilk analyzed,	4
Number of samples of prepared milk and cream analyzed,	50
Number of samples plated for bacterial examination,	742
Number of refractions for the presence of water,	38
Number of samples containing added water,	13
Number of microscopic examinations,	82
Number of prosecutions,	1
Number of convictions,	1
Number of samples having bad flavor,	20
Number of slimy milk and cream samples,	3
Number of bitter milk samples received and examined,	9
Number of samples showing skimming,	35
Number of protein determinations,	35
Number of oleomargarine samples examined,	3
Number of butter samples examined,	4
Number of sediment tests for visible dirt,	409
Number of cows tested for producers,	103
Number of cards and notices,	1,212
Number of samples of vinegar tested,	23
Number below in solids,	3
Number below in acid,	7

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ICE CREAM ANALYSIS.

Samples taken,	69
Number of wholesale dealers,	9
Number of dealers who purchase ice cream,	47
Number of dealers who manufacture ice cream,	31
Number of samples above standard,	63
Number of samples below standard,	6
Highest per cent of fat,	16.50%
Lowest per cent of fat,	5.20%
Average per cent of fat,	10.56%

SUMMARY OF MILK BACTERIA COUNTS.

	1915.		1916.	
Number of samples with 10,000 and under,	82	22.3%	56	15.2%
Number of samples with between 10,000 and 20,000,	23	6.2%	22	6.0%
Number of samples between 20,000 and 50,000,	52	14.1%	62	16.8%
Number of samples between 50,000 and 100,000,	41	11.2%	58	15.8%
Number of samples between 100,000 and 200,000,	67	18.2%	46	12.8%
Number of samples between 200,000 and 500,000,	50	13.6%	40	10.9%
Number of samples with a count above 500,000,	53	14.4%	83	22.6%
Number of samples with not more than 10,000,	82	22.3%	56	15.2%
Number of samples with not more than 100,000,	177	48.1%	198	53.9%
Number of samples with not more than 500,000,	301	81.8%	284	77.3%

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MEATS, PROVISIONS AND SLAUGHTERING.

Inspection of meat, provisions, and different food products increases each year, and the money expended in the work is well invested. The inspections made during the year are tabulated as follows:—

MARKET INSPECTION.

Cold storage houses,	55
Wholesale fruit houses,	131
Wholesale meat houses,	127
Retail meat markets,	2,960
Retail grocery markets,	3,926
Retail fish markets,	1,299
Retail fruit markets,	2,641
Meat carts,	149
Total,	11,288

During the year the following list given in pounds was condemned:—

MEATS		GROCERIES	
Beef,	932	Pork and beans,	5 cases
Pork,	138	Peanut butter	25 pounds
Lamb,	195		
Veal,	95	VEGETABLES	
Liver,	28	Onions,	2 bushels
Kidney,	2	Lettuce,	1 box
Hamburg,	9	Beans	1 box
Bacon,	12		
Ham,	40	FRUITS	
MEAT PRODUCTS		Strawberries,	21 crates
Sausage,	22	Peaches,	8 crates
Frankforts,	124	Peaches	2 baskets
Bologna,	139	Melons,	28 crates
Head cheese,	2	Watermelons,	22
Beef scraps	4,250		
Lard,	25		

POULTRY.

Chicken,	140

The 4,250 pounds of beef scraps was a part of a shipment from Texas and had spoiled in transit.

During the year 26 complaints were received from consumers but in 14 cases there was no just cause for such complaint. In November there was an outbreak of trichinosis in four Italian families caused by eating diseased pork which came from outside the city, having been sold to the

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consumer by the producer without being inspected. On investigation 100 pounds of bologna, 50 pounds of pork, and 25 pounds of lard were condemned and seized.

SLAUGHTERING INSPECTION.

The following examinations of carcasses have been made:—

Beef,	2
Veal,	19
Lamb,	2
Hogs,	98

all of which were slaughtered within the city limits. One carcass was condemned and buried and one head of hogs found affected with tuberculosis.

VITAL STATISTICS.

Vital statistics are utilized to determine the changes which are taking place as a result of the various activities of the Health Department and as a guide for future development and extension of Health Department work. A careful study of the various tables and the classification of diseases causing death, for a series of years, are of more value in determining the real health of a community than the records for a single year. The total number of deaths from all causes for 1916 was 1,741 (1,511). The population of the city as estimated by the State Department of Health is 106,365. The gross mortality rate is 16.36 (14.67) per 1,000 population. There were 253 (229) non-resident deaths, which makes the actual mortality rate 13.98 (12.45) per 1,000 population. 47 deaths were caused by accidents of various kinds: motor cars, 22; trolley cars, 4; railroads, 11; teams, 4; elevator, 1; accidental inhalation of gas, 5. 311 (276) deaths occurred in children under one year of age. 776 (693) deaths occurred in persons above 50 years of age. It should be borne in mind that a large percentage of the population having resided here for many years may be classed as permanent residents. The number of deaths in persons above 50 years of age will therefore be larger than in cities of newer growth and with a less staple population, and therefore tends to increase the mortality rates. Epidemic occurrence of contagious diseases will also cause an upshoot in a gradually declining death rate. 22 (3) deaths occurred from anterior poliomyelitis during the year. As the city grows in size and in density of population, with congestion of traffic and consequent increasing liability to accidents, the deaths from traumatisms will tend to increase in number. Some of these are preventable, but others are unavoidable.

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Springfield is the recognized hospital center of Western Massachusetts, and deaths from non-residents coming here for treatment will add to the gross mortality in the future as it has in the past.

The birth and marriage rate per 1,000 population should be considered in its effect on the mortality rate. A declining birth rate will eventually bring the population to a high average age, and thus cause an increase in the death rate due to diseases of advancing years. While a high birth rate adds to the infant mortality, it also indicates an increase in the marriage rate with a larger proportion of persons at the age period showing the lowest mortality rates. The table dealing with these statistics tabulated from 1900 indicates a well maintained ratio existing in this city between the birth, marriage, and death rate, which is an essential feature in the substantial growth of a city in population.

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BIRTHS, DEATHS, STILLBIRTHS AND MARRIAGES WITH POPULATION AND RATES PER 1,000 OF POPULATION.

Years	Population	Births, Stillbirths excluded	Deaths, Stillbirths excluded	Stillbirths	Marriages	Birth Rate	Death Rate	Marriage Rate
1900	*62,059	1,562	1,143	49	640	25.16	18.41	20.62
1901	64,412	1,527	933	49	642	23.73	14.48	19.92
1902	66,854	1,681	1,025	49	701	25.14	15.33	20.96
1903	69,389	1,758	1,100	53	726	25.33	15.85	20.92
1904	72,020	1,682	1,149	72	686	23.35	15.95	19.04
1905	*73,540	1,879	1,120	71	800	25.55	15.22	21.74
1906	76,255	1,863	1,136	69	934	24.43	14.89	24.48
1907	78,707	2,061	1,302	63	1,156	26.18	16.54	29.36
1908	81,425	2,219	1,334	82	943	27.25	15.03	23.16
1909	84,237	2,371	1,309	65	1,064	28.14	15.53	25.26
1910	*88,926	2,562	1,481	94	1,170	28.81	16.65	26.30
1911	92,048	2,582	1,412	104	1,274	28.05	15.33	27.68
1912	96,973	2,876	1,445	95	1,147	29.65	14.90	23.64
1913	100,877	2,964	1,464	100	1,260	29.38	14.51	24.98
1914	104,949	3,077	1,521	146	1,226	30.71	14.49	23.36
1915	*102,971	3,268	1,511	115	1,185	31.73	14.67	23.01
1916	106,365	3,469	1,741	131	1,554	32.61	16.36	29.22

*Official.

COMPARISON OF DEATHS FROM PRINCIPAL DISEASES IN PERCENTAGES PER 1,000 POPULATION BY YEARS.

Causes	1911	1912	1913	1914	1915	Average 1911–1915 inc.	1916
Anterior Poliomyelitis,	.01	.103	.009	.019	.029	.034	.206
Apoplexy,	.89	1.04	.743	.943	.854	.894	.967
Bright's Disease (Chronic),	1.65	1.76	1.358	1.791	1.407	1.593	1.763
Cancer,	.91	.969	1.1	.886	1.068	.986	1.099
Diphtheria,	.097	.154	.158	.123	.097	.125	.169
Diabetes,	.228	.267	.208	.152	.242	.219	.253
Enteritis (under 2 years),	.847	.886	.812	.79	.747	.816	.798
Heart Disease,	1.52	1.43	1.328	1.305	1.640	1.444	1.691
Measles,	.108	.092	.089	.085	.029	.08	.131
Pneumonia,	1.17	.74	.921	.924	.980	.947	1.249
Scarlet Fever,	.02	.02	.029	.009	.009	.017	.028
Tuberculosis (Pulmonary),	.83	.76	.722	.886	.786	.796	.620
Typhoid Fever,	.19	.15	.198	.209	.106	.170	.046
Whooping Cough,	.14	.134	.059	.019	.174	.105	.018
Suicides,	.15	.22	.158	.104	.155	.157	.150
Traumatism,	.43	.43	.396	.340	.640	.447	.629
Homicides,	.04	.06	.059	.019	.029	.041	.056

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TABLE SHOWING MORTALITY IN PERCENTAGES PER 1,000 INHABITANTS FOR ALL DISEASES AT DIFFERENT AGE PERIODS, BY YEARS.

Age Period	YEARS						
	1911	1912	1913	1914	1915	Average 1911–1915 inc.	1916
Under 1	2.715	2.908	2.924	2.706	2.680	2.786	2.922
1	.488	.515	.386	.428	.582	.479	.638
2	.260	.154	.198	.161	.232	.201	.187
3	.130	.165	.118	.066	1.45	.124	.216
4	.108	.082	.137	.057	.058	.088	.131
5–9	.130	.237	.287	.238	.194	.217	.338
10–14	.173	.123	.168	.238	.233	.187	.225
15–19	.239	.319	.327	.285	.301	.294	.300
20–29	1.097	1.165	.921	1.019	.990	1.038	1.061
30–39	1.477	1.124	1.209	1.352	1.048	1.242	1.569
40–49	1.520	1.629	1.397	1.448	1.485	1.495	1.475
50–59	1.520	1.557	1.486	1.666	1.776	1.601	1.616
60–69	2.379	1.948	1.863	2.	1.796	1.997	2.461
70–79	1.933	1.814	1.942	1.8	1.980	1.893	2.067
Over 80	1.162	1.144	1.130	1.019	1.174	1.125	1.146

Respectfully submitted,

THOMAS F. REARDEN, M.D.
EDGAR H. GUILD, M.D.
PHILIP V. ERARD.

Board of Health.

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REPORT

OF THE

INSPECTOR OF ANIMALS

SPRINGFIELD, MASS., January 1, 1917.

To the City Council of the City of Springfield:—

I have the honor to submit herewith my report as Inspector of Animals for the year 1916.

Acting under instructions received from the State Department of Animal Industry, the annual inspection was carried on from January 15 to March 1, 1916. The following animals were examined, also the premises in which they were kept:—

Bulls	12
Cows	274
Young cattle	118
Swine	350

These animals were kept in 98 places within the city limits. Twenty-seven places visited which last year kept stock, this year had none. A great improvement in the sanitary conditions of barns was noted.

During the year there was reported to me two cases of glanders in horses, which, on being tested with mallein, proved negative.

I conducted autopsies on two horses that had been kept in this city but which had died outside the city limits, with the result that one had Farcy and the other was free from any infectious disease.

I have quarantined seven cows as suspicious of having tuberculosis, with the result of five of them being killed and the diagnosis being confirmed by autopsy.

We have had four outbreaks of hog cholera during the year, affecting 130 hogs. The various premises were quarantined and the Department of Animal Industry have the matter at present under their jurisdiction.

There were two reported cases of rabies in dogs which on examination proved negative.

Twenty-four visits were paid to places under various quarantines.

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Permits were received and examinations made on 223 horses, 2 bulls, 20 cows, coming into this city from places out of the state. Eight horses were examined that had no permit, two of which were quarantined. All such examinations proved that no horses or cattle entering the city were infected with any contagious or infectious diseases.

Our animals during the year have maintained their normal health standard, there being at present no contagious or infectious diseases beyond the ordinary distempers.

Respectfully submitted,

HARRY LUKES,
Inspector of Animals.

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PLANNING COMMISSION.

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CITY PLANNING COMMISSION

MEMBERSHIP

EX-OFFICIO MEMBERS

Mayor,
FRANK E. STACY.

President of Board of Aldermen,
GEORGE S. COOK.

President of Common Council,
ALBERT D. SHAW.

CITIZEN MEMBERS.

	Term Expires
CHARLES H. PARSONS, *Chairman*,	October 1, 1918.
WILLIAM M. STEVENSON,	October 1, 1920.
J. FRANK DRAKE,	October 1, 1919.
STANFORD L. HAYNES,	October 1, 1917.
KURT R. STERNBERG,	October 1, 1921.

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FINANCIAL STATEMENT

NOVEMBER 30, 1916.

RECEIPTS.

Appropriation,		$1,000 00

EXPENDITURES.

Printing,	$78 89	
Typewriting and multigraphing,	36 05	
Postage,	60 61	
All other items,	78 00	
		253 55
Unexpended balance,		$746 45

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CITY PLANNING COMMISSION

SPRINGFIELD, MASS., December 16, 1916.

To His Honor, the Mayor, and the City Council of the City of Springfield:—

In accordance with the ordinance creating this Commission we beg to submit herewith our third annual report, covering the year December 1, 1915, to November 30, 1916.

During that period the Commission has held numerous regular meetings as well as many informal conferences, although only one matter was formally referred to us by the City Council, namely, the question of "North and South Thoroughfares."

BILLBOARDS.

Early in the year the Commission, after most exhaustive study and careful consideration, presented to the City Council the following report on Billboards relating to a proposed Billboard Ordinance:—

To the City Council of the City of Springfield:—

We submit herewith, for the consideration of your honorable body, the draft of a proposed ordinance designed to regulate the use of billboards in the City of Springfield.

We are also submitting herewith a printed report covering the matter of "Billboard Advertising in Springfield," which report outlines in considerable detail the reasons for regulation, the efforts to regulate which have been made in other cities, and the legal limitations in the problem. Since the printing of this report, regulations relating to signs on buildings have been adopted as a part of the new Building Code and these regulations, with some few changes, are incorporated into the proposed ordinance herewith submitted.

Prior to this time, however, no attempt has been made in this city to regulate billboards erected upon the ground and the necessity for regulation is becoming more and more apparent. In framing the proposed ordinance, we have kept carefully in mind the fact that under present laws regulation is impossible when based only upon æsthetic grounds. This being the case, much that is undesirable in appearance and injurious to surrounding property is still possible even under a strict enforcement of an ordinance such as the one herewith submitted.

We trust that this fact will be borne in mind in the consideration of the subject and we believe that a careful study of the provisions of the ordinance and some practical observation of the objectionable features

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connected with this class of business, will impress each member of the City Council, not only with the reasonableness of the proposed regulations, but also with the necessity of establishing regulations which may remove a part even if they cannot remove all the objectionable features.

We recommend, therefore, the passage of the ordinance as submitted

Yours respectfully,
THE CITY PLANNING COMMISSION.

A copy of the said proposed ordinance is attached hereto as "Exhibit A." No action has been taken upon it as yet by the City Council.

NORTH AND SOUTH THOROUGHFARES.

At the request of a committee appointed at a mass meeting of citizens held early in the year, the following order relating to "North and South Thoroughfares" was passed by the City Council:—

IN BOARD OF ALDERMEN, January 10, 1916.

ORDERED, if the Common Council concur, That the City Planning Commission be and is hereby requested to make a thorough investigation of the entire project of providing another main thoroughfare extending north and south through the city, and to present a comprehensive report upon the entire subject, including estimates of cost under any feasible plan or plans of assessing property owners for betterments or otherwise, as early as circumstances permit.

A true copy of an order passed by the Board of Aldermen January 10, 1916, by the Common Council January 17, 1916, and approved by the Mayor January 18, 1916.

Attest: E. A. NEWELL, *City Clerk.*

Thereupon, the Commission, after making careful investigation and conferring with the Board of Public Works, among others, submitted a report, copy of which is attached hereto as "Exhibit B."

Soon after the submission of the said report to the City Council petitions were presented to the Council for the widening of Locust street and South Main street and the extension of Locust street to meet Water street at Gardner street. These petitions were referred to the Board of Public Works, the present situation relating thereto being as follows:—

WIDENING OF LOCUST STREET AND SOUTH MAIN STREET.

A report upon the original petition, growing out of an understanding between the City Planning Board and the Board of Public Works, was sent to the City Council by the Board of Public Works, recommending immediately that part of the proposed widening in front of the property owned by Moritz Ascher at the southerly corner of Fremont street.

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Following this, another petition was presented covering the widening from Central street to Locust street. This petition was reported upon by the Board to cover that part of the widening in front of property on the easterly side of Main street at the northerly corner of Saratoga street owned by Telesphore B. Moineau.

The third petition was presented to the Board covering about the same ground as the previous petitions. This petition is now pending with the Board of Public Works, hearings thereon having been given to cover both the matter of common convenience and necessity and land damages.

The petition for widening Locust street on the northerly side was followed by another petition for the establishment of a building line on the southerly side of the street as discussed between the City Planning Board and the Board of Public Works. The usual hearings have been given on this petition and the next step in the usual order will be for the Board of Public Works to report to the City Council.

EXTENSION OF LOCUST STREET TO WATER STREET.

In the matter of the extension of Locust street westerly to the intersection of Gardner street and Pecousic avenue a hearing was given on the question of convenience and necessity, but no further steps have been taken, the petition being now in the hands of the Board of Public Works subject to future action.

MASSACHUSETTS FEDERATION OF PLANNING BOARDS.

The Federation was formed at the last annual conference of Planning Boards and Homestead Commission, consisting of all the forty-nine city and town planning boards in Massachusetts. An executive committee was appointed to have in charge matters of general policy and suggestion. This executive committee has been meeting in Boston each month throughout the year and has already sent out literature to the various members of the Federation giving suggestions regarding functions, official plans, present and future legislation.

Through the efforts of the Springfield City Planning Commission, it was found possible to have the annual conference of the Federation and Homestead Commission held in Springfield this year, thus offering Springfield citizens an opportunity to attend meetings and hear discussions.

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CITY PLANNING EXHIBITION.

A City Planning Exhibition was held in Springfield November 23 and 24, 1916, under auspices of the Federation, at which some fifteen planning boards exhibited work. This Exhibition was most interesting owing to the fact that it gave Springfield citizens an opportunity to see how the various planning boards of the state have approached the subject of city planning and applied its principles to their varying local conditions.

City planning is so dependent upon the co-operation of city officials, departments, and the general public, that publicity of this kind should assist greatly in stimulating the necessary interest.

MAPS AND CHARTS.

Numerous plans, maps, and charts have been prepared with great care by the Commission, with the assistance of the Department of Streets and Engineering, this material being exhibited at the recent City Planning Exhibition.

Work has been going on the whole year by the Department of Streets and Engineering on a topographical survey of Springfield. A special appropriation was made by the City Council in order to carry on this work and it is hoped that an even larger one will be made for 1917. It is absolutely essential that this work be completed before consideration can be given intelligently to a real City Plan.

The titles of the charts and maps above referred to are as follows:—

1—Radial Thoroughfares.
2—Main Thoroughfares.
3—Circumferential Thoroughfares.
4—Sewerage System.
5—Trolley Transportation System.
6—Water Distribution System.
7—Area Served by Trolley.
8—Parks and Playgrounds.
9—Schoolhouses.
10—Developed and Undeveloped Sections.
11—Assessed Valuations.
12—Springfield Streets.

WEST STREET APPROACH.

Quite a large portion of the work on the West street approach, under the Olmsted Plan, has been done this past year, although considerable change was made in the plan as officially adopted by the Park Commission and the City Planning Commission without consultation with

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our Board. The work already done begins to give some idea of how attractive that section of the city can be made ultimately.

STEARNS PARK.

The improvement to Stearns Park referred to in our reports for the years 1914 and 1915 has not been made as yet, due to the fact that the necessary funds have not been appropriated. However, it is hoped that in 1917 this money will be forthcoming.

BILLS IN LEGISLATURE.

Our Commission gave its support to the so-called "Board of Survey" Bill which was passed at the last session of the Legislature. (See Chapter 190 of General Acts of 1916.) This act is merely permissive in character and no steps have been taken as yet looking toward the adoption of this act by Springfield.

Our Commission has been greatly interested also in the bill known as "Taking Land for Public Purposes" (House Bill 1750). This bill, after considerable discussion, has been referred to the Attorney General for study, revision, and report. As revised and amended it will be submitted, with the recommendation of the Attorney General, to the Legislature of 1917.

SUGGESTIONS AND RECOMMENDATIONS.

During the past year the preparatory work essential to the actual beginning of a city plan has been practically completed with the exception of the city's topographical map. In other words the Commission, since beginning its work, has completed the compilation of all statistics which may be of assistance in determining questions which will arise and has completed a comprehensive set of diagrams, maps, charts, and drawings designed to assist the work through graphic presentation of useful and necessary information.

Little is now needed in fact, aside from the topographical map, to furnish skilled advisers with all the material which they will need in the actual preparation of a comprehensive city plan.

As stated already, an extra appropriation granted the past year by the City Council has enabled the Engineering Department to make substantial progress on the topographical map and it is the earnest desire and request of this Commission that the appropriation for this work be still further increased this coming year not only because it will expedite

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the work of this Commission, but because when completed the topographical map will be of constant service and assistance to the City's Engineering Department for all future time.

Respectfully submitted,

CHARLES H. PARSONS,
STANFORD L. HAYNES,
KURT R. STERNBERG,
J. FRANK DRAKE,
WM. M. STEVENSON,
City Planning Commission.

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BUILDING DEPARTMENT.

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SEVENTH ANNUAL REPORT

OF THE

BUILDING DEPARTMENT

SPRINGFIELD, MASS., December 30, 1916.

To the Honorable City Council of the City of Springfield, Mass.

GENTLEMEN:—The following report of the business of the Building Department for the year ending December 30, 1916, is respectfully submitted.

The year just passed, as indicated by the number and amount of its building operations, has been by far the most active in the history of the city.

The estimated cost of building projects for which permits have been issued, amounts to a total of $7,101,032, a gain over last year's record of more than 16%, and an increase over Springfield's high record of 1912 of more than 12%.

During the year permits for 1,695 building operations have been granted, compared with 1,495 for last year.

Sixty-six (66) tenement buildings, one hundred eighty-seven (187) two-family houses, and three hundred sixty-one (361) single family houses have been erected.

The two Building Inspectors and the Commissioner have made a total of 8,511 inspections of buildings during the process of construction, alterations, or material repairs.

DANGEROUS BUILDINGS.

Many buildings have been examined as to their safety. The owners of six (6) buildings have been notified of their dangerous condition, and they have either been demolished or made safe.

SAFE FLOOR LOADS.

The floors in three buildings have been surveyed and notices, as required by law, have been posted near the floors to which they relate.

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HOTELS AND LODGING HOUSES.

In compliance with the requirements of Chapter 655, Acts of 1913, twenty (20) hotels and thirty-six (36) lodging houses have been inspected, and the condition of their exits has been reported to the State District Police.

Nine (9) special inspections of lodging houses have been made, and changes ordered wherever conditions did not conform to the requirements of their license, permitting them to be maintained as lodging houses.

ELEVATORS.

The work of inspecting the elevators, and gradually getting the owners to make them comply, in all their details, with the requirements of the "State Law and Regulations," has been carried forward persistently during the year.

Three hundred twenty-six (326) are now in perfect condition, and certificates have been issued. Nearly all of the others have received some attention, and are being made to conform with the requirements as rapidly as circumstances will permit.

Six hundred forty-nine (649) elevators are now in use in this city.

FIRE ESCAPES.

The number of fire escapes inspected by the Department this year falls a little short of the number reported last year. The installation of outside fire escapes is being discouraged wherever interior stairs, inclosed within fire-resisting shaftways, are feasible or possible. Modern steel, in such small members as are used for such devices, corrodes very rapidly in the atmosphere of cities. Unless kept painted they become unsafe after four or five years of exposure; and when painted, unless the work is conscientiously done, the weather gets into the joints and other places, and their safety is soon impaired or becomes a matter of doubt.

One hundred thirty-one (131) fire escapes have been inspected and twenty-four (24) owners have been notified of defective conditions.

SIGNS.

Early in the year an ordinance was passed by the City Council regulating all signs or similar devices projecting over the public highways.

Fifty-two (52) petitions for such signs have been approved by the City Council, and agreements to indemnify the city against loss or damage,

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because of such signs, have been filed with the Building Commissioner, by their respective owners, as required by law.

Under the provisions of the Building Ordinance permits for ninety (90) signs have been granted. Of these, four (4) were roof signs, forty-five (45) were flat signs, five (5) were projecting, and thirty-six (36) were illuminated.

ELECTRICAL INSPECTIONS.

The members of the electrical division of this Department have been unable to handle the large amount of work devolving upon them, except by working overtime, and many evenings have been spent in properly recording the work done during the day. This ought not to be continued indefinitely. Some method of abbreviating the records and expediting the work will, if possible, be devised. Considerable thought has already been given to the printed forms used in this work, in an endeavor to simplify them and reduce them to their lowest workable terms. If still further reduction cannot be made, more assistance will have to be asked for to carry on this important part of our work.

During the year the number of permits issued for electrical installations has increased 16%, permits to install meters for service, 24%, and the number of inspections 34% over the record for any other year.

Three thousand three hundred eighty-one (3,381) permits have been issued to contractors and others to install electrical work.

One thousand five hundred and eighty-two (1,582) permits have been issued to the United Electric Light Company and others to supply service.

The work performed by one hundred fifty-three (153) different contractors has been inspected during the year. Seven thousand six hundred seventy-eight (7,678) inspections have been made.

PLUMBING.

While enforcing the regulations pertaining to plumbing, slight modifications and improvements have been indicated or suggested from time to time, and these have been incorporated in proposed "revised regulations." These will shortly be submitted to the Board of Health for its approval and probably will become effective some time in 1917.

The plumbing activities show an increase over last year. One thousand two hundred eighty-five (1,285) permits were issued, an increase of 7%, and the number of fixtures installed is greater by 14%. Four thousand six hundred and sixty-seven (4,667) inspections have been made by the inspectors.

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GAS FITTING.

The use of gas for heating water in small, high pressure boilers is being extended from year to year.

Most of these boilers are supplied with water from the high pressure system. To decrease the pressure, reducing valves or pressure regulators are used. Such regulators allow the water to circulate in but one direction —towards the boiler—so that when the water is heated it cannot expand back into the mains, with the result that as the heat is applied the pressure on the boiler increases until it is relieved, or the boiler bursts.

Two such boilers have exploded during the past year. Fortunately no one was seriously injured, but the buildings in which the boilers were located were badly damaged.

To avoid, if possible, such dangerous conditions, the Building Ordinance requires that all hot water boilers shall be equipped with a relief valve, or relief faucet, to relieve the pressure due to expansion.

Only three types of these devices have been approved by the Building Department. These are now being installed with the hope that they will fully serve their purpose.

THE TABLES.

Following are tables showing the building operations, together with the estimated cost of buildings for which permits were granted during the year.

BUILDING OPERATIONS BY THE CITY OF SPRINGFIELD, MASS.

New Buildings.

Ward 4—Logan Street,	Incinerator,	$15,000.00
Ward 8—St. James Avenue,	School (Portable),	1,550.00
Ward 8—Dewey Street,	School (Portable),	2,800.00
Ward 7—Woodlawn Street,	School (Portable),	2,800.00
Ward 2—Franklin Street,	School,	225,000.00
	Total,	$247,150.00

Additions and Alterations.

Ward 3—Howard Street,	Addition—School,	$96,000.00
Ward 6—Pecousic Avenue,	Forestry Building,	3,000.00
Ward 5—Worthington Street,	Addition—School,	20,000.00
Ward 6—Garfield Street,	Alterations—School,	525.00
	For Fire Escapes, Exits, and Fire Protection in 38 different schools in all parts of the City,	32,061.06
	Total,	$151,586.06
	Total of New Buildings and Additions,	$398,736.06

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BUILDING PERMITS GRANTED
From Jan. 1 to Dec. 31, 1916.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Bakery,			1										1
Bath House,					1								1
Car Barn and Offices,					1								1
Church (Portable),						1							1
Convent,				1									1
Dye House,		1											1
Factories,	1	2	4	2	1						1		11
Garages,	3	2	14	41	41	38	29	35	45	45	25	17	335
Garage and Carriage Building,		1											1
Garage and Store,					1								1
Hall (Social),								1					1
Houses—three family,			1	1									2
Houses—two family,	6	20	10	23	28	14	23	16	11	12	14	10	187
Houses—one family,	27	14	25	59	40	32	27	31	32	28	24	22	361
Incinerator,					1								1
Office,	1												1
Power Plants,						1				1			2
Rooming Houses,	2												2
School,											1		1
Schools (Portable),							1	2					3
Shops,					1					1	1		3
Stables,		2	1	1	1		1		2				8
Storage,	4	5	1	9	2	6	2	9	11	8	11	4	72
Storage and Office,					1								1
Stores,	1	1	1	4	3	3	4	1	1		2		21
Stores and Tenements,	1		3		1	1			2	1	1	1	11
Telephone Building,											1		1
Tenements,	1	6	5	4	11	8	3	6	4	2	3	13	66
Theater (Moving Picture),					1								1
Warehouses,		1							1				2
Additions,	14	7	34	28	29	26	21	22	22	20	15	9	247
Alterations,	18	16	27	40	36	34	31	20	24	26	29	25	326
Miscellaneous,		1		2	3	4	2	2	4	1		2	21
Totals,	79	79	127	215	203	168	144	145	159	145	128	103	1,695

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ESTIMATED COST OF NEW BUILDINGS—From Jan. 1 to Dec. 31, 1916.

Ward	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1	$7,000	$92,650	$81,295	$39,020	$246,275	$63,225	$54,930	$38,925	$89,750	$19,240	$87,825	$21,200	$841,335
2	4,800		15,000	11,335	21,075	120,850	51,500	800	50,100	11,600	255,200	32,600	574,860
3		100,000		46,075	50,000	303,100	20,000			29,750	370,000	167,080	1,086,005
4	65,000	22,000	23,000	760	67,550	50	8,575	325	36,000	6,500	5,025	25,000	259,785
5	22,000	800	110	9,415	204,500	8,057	600	1,300	4,215	32,750	3,775	224,640	584,680
6		34,000	43,000	19,850	158,700	34,300	9,025	96,200	50,500	44,950	30,000	650	521,175
7	59,685	100,810	179,325	97,150	142,730	61,010	114,500	97,435	69,170	64,425	112,125	108,555	1,206,920
8	141,050	94,625	98,350	184,120	132,000	81,690	72,700	92,950	74,005	107,430	63,575	41,725	1,184,220
Totals	$299,535	$444,885	$440,080	$407,725	$1,022,830	$744,800	$331,830	$327,935	$373,740	$316,645	$927,525	$621,450	$6,258,980

Note:—In addition to the above, "Verbal Permits" have been given (and recorded) for 132 building operations, costing less than $25.00 each and aggregating $3,080.00.

COMPARATIVE STATISTICS.

Table showing the comparative number and cost of building operations since the creation of the Building Department.

	New Buildings	Cost	Additions and Alterations	Cost	Total Costs
1910*	194	$1,410,892	89	$83,043	$1,493,935
1911	704	4,230,140	505	665,823	4,895,963
1912	870	5,507,434	619	785,060	6,292,494
1913	763	4,259,378	566	788,087	5,047,465
1914	851	4,020,873	641	1,035,369	5,056,242
1915	936	5,529,357	559	532,824	6,066,394
1916	1,122	6,258,980	573	842,052	7,101,032

*For three months only (Oct., Nov., Dec.).

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ESTIMATED COST OF ADDITIONS AND ALTERATIONS

From Jan. 1 to Dec. 31, 1916.

WARD	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
1		$150	$14,089	$2,120	$480	$6,700	$1,113	$725	$160	$1,850	$5,641	$1,050	$34,078
2	$12,090	1,900	1,247	19,105	1,900	12,093	6,750	4,550	2,450	1,800	11,245	4,850	79,980
3	6,040	13,000	49,325	11,540	46,600	125,595	32,260	8,250	14,425	19,695	21,470	51,850	400,050
4	1,875	1,175	2,614	4,190	5,050	2,325	1,725	650	1,025	1,450	1,825	925	24,829
5	700	700	5,748	3,600	2,385	630	20,400	21,100	1,240	575	350	13,150	70,578
6		50	10,063	3,060	3,225	3,575	17,965	1,385	15,150	300	8,470	6,875	70,118
7	2,775	3,600	8,139	5,150	595	2,200	1,650	2,250	2,975	200	1,550	675	31,759
8	2,800	4,725	4,663	9,295	75,150	1,000	13,602	3,260	1,450	2,315	7,700	4,700	130,660
Totals	$26,280	$25,300	$95,888	$58,060	$135,385	$154,118	$95,465	$42,170	$38,875	$28,185	$58,251	$84,075	$842,052

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BUILDING OPERATIONS—BY WARDS

	Wards								
	1	2	3	4	5	6	7	8	Totals
Bakery,	1								1
Bath House,								1	1
Car Barn and Offices,	1								1
Church,								1	1
Convent,								1	1
Dye House,							1		1
Factories,	1	1					4	5	11
Garages,	48	22	7	27	22	27	107	75	335
Garage and Carriage Building,			1						1
Garage and Store,	1								1
Hall (Social),							1		1
Houses—three-family,							1	1	2
Houses—two-family,	18	7	11	3		6	72	80	187
Houses—one-family,	31			1	1	4	134	190	361
Incinerator,				1					1
Office,								1	1
Power Plants,			2						2
Rooming House,				1				1	2
School,		1							1
Schools (Portable),							1	2	3
Shops,		1			1			1	3
Stables,	2						3	3	8
Storage,	13	3		3	5	3	10	35	72
Storage and Office,			1						1
Stores,	6	3	1	1	2		4	4	21
Stores and Tenements,	1	1		2		3	1	3	11
Telephone Building,			1						1
Tenements,	17	6	3	3	11	9	11	6	66
Theater (Moving Picture),							1		1
Warehouses,	1				1				2
Additions and Alterations,	44	68	138	61	48	67	59	88	573
Miscellaneous,	2	2	2	1	1	2	2	9	21
Totals,	187	115	157	104	92	121	412	507	1,695

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CLASSIFICATION OF BUILDINGS

	Number		Cost	
	Brick	Wood	Brick	Wood
Bakery,	1		$900	
Bath House,		1		$1,500
Car Barn and Offices,	1		125,000	
Church,		1		2,000
Convent,	1		11,070	
Dye House,	1		7,000	
Factories,	11		292,200	
Garages,	164	171	337,200	35,615
Garage and Carriage Building,	1		100,000	
Garage and Store,	1		4,500	
Hall (Social),		1		25,000
Houses—three-family,	1	1	5,500	3,600
Houses—two family,		187		840,300
Houses—one-family,	1	360	17,000	1,054,775
Incinerator,	1		15,000	
Office,		1		1,200
Power Plants,	2		264,750	
Rooming Houses,	1	1	30,000	4,000
School,	1		225,000	
Schools (Portable),		3		6,650
Shops,	3		45,500	
Stables,	1	7	150	1,500
Storage,	7	65	5,050	23,095
Storage and Offices,	1		50,000	
Stores,	8	13	52,450	51,750
Stores and Tenements,	9	2	259,000	7,000
Telephone Building,	1		370,000	
Tenements,	53	13	1,813,100	92,700
Theater (Moving Picture),	1		20,000	
Warehouses,	1	1	22,000	2,500
Additions and Alterations,	189	384	684,006	158,046
Miscellaneous,	12	9	26,600	6,825
Totals,	474	1,221	$4,782,976	$2,318,056

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INSPECTIONS BY THE BUILDING INSPECTORS

Table showing number of inspections each month, and for what purpose.

	New Buildings	Alterations Additions	Specials	Fires	Fire Escapes	Totals
January,	649	108	31	3		791
February,	420	110	16	8		554
March,	457	104	33	2		596
April,	461	95	79	1	48	684
May,	659	90	30		16	795
June,	614	58	22	1		695
July,	528	158	38	1		725
August,	609	150	36			795
September,	601	57	28	1		687
October,	571	102	42	2		717
November,	678	123	47			848
December,	449	74	33	1	67	624
Totals,	6,686	1,229	435	20	131	8,511

VIOLATIONS REPORTED AND CORRECTED.

Building without permit,	59
Defective construction,	1
Dangerous buildings,	6
Dangerous chimney,	7
Flue lining omitted,	14
Woodwork placed against chimney,	3
Omission of fire stops,	51
Lathing without notification or permission,	18
Heater installed without permit,	96
Omission of shields over heaters and smoke pipes,	30
Woodwork too near heater and smoke pipe,	36
Fire doors omitted,	17
Omission of ladder to scuttle,	13
Miscellaneous,	186
Total,	537

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NUMBER OF STEAM BOILERS INSTALLED

From Jan. 1 to Dec. 31, 1916.

	Wards								
	1	2	3	4	5	6	7	8	Totals
January,	6	2	1	1	3	4	27	18	62
February,	5		2	3	2		25	8	45
March,	3			1	1	1	21	8	35
April,	11			1	4	6	22	12	56
May,	2			2	4	17	9	18	52
June,	8	1	3	1	1	18	19	15	66
July,	10	2	6	1	3	4	13	15	54
August,	4	2			1	7	16	11	41
September,	4	3	1	1	2		15	8	34
October,	8	3	5	3	3	1	21	26	70
November,	6	1	2	4	2	1	26	35	77
December,	1	2	1	1	1	1	18	8	33
Totals,	68	16	21	19	27	60	232	182	625

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NUMBER OF HEATING FURNACES INSTALLED

From Jan. 1 to Dec. 31, 1916.

	Wards								
	1	2	3	4	5	6	7	8	Totals
January,	5	12			1		1	13	32
February,	1						1	8	10
March,						2	3	6	11
April,	1						1	9	11
May,	1							3	4
June,	3		1		1		5	10	20
July,	4				1		4	11	20
August,							4	8	12
September,	2	1		2	3		2		10
October,								1	1
November,	2			2	4		3	31	42
December,	3	1			1	4	7	2	18
Totals,	22	14	1	4	11	6	31	102	191

Note—Permits have been granted for the installation of eight bake ovens.

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ELEVATOR INSPECTIONS

From Jan. 1 to Dec. 31, 1916.

	Hydraulic Passenger	Hydraulic Freight	Electric Passenger	Electric Freight	Hand Power	Dumb Waiter	Belt Elevators	Special Inspections	Totals	Written Reports	Defective Elevators
January,....	8	27	4	4	1	8	2	33	87	54	27
February,...	4	13		4	1	4	18	23	67	44	27
March,.....	9	16	9	3		5	7	23	72	49	32
April,.....	1	22	5	5		9	5	27	74	47	16
May,.....	6	35		9		1	2	35	88	53	44
June,.....	3	19	5	11	3	1	9	33	84	51	29
July,.....		11	11	9	2	18	22	19	92	73	34
August,.....	1	16	3	24	6	13	18	22	103	81	40
September,..	8	22	9			15	5	31	90	59	37
October,....	18	10	15	3		4		24	74	50	18
November,..	11	17	5	8		1	9	21	72	51	30
December,..	8	32	3	5	2	3	1	24	78	54	6
Totals,....	77	240	69	85	15	82	98	315	981	666	340

NOTE:—During the year fifteen elevators have been removed and twelve new elevators installed; six hundred and forty-nine are now in use, and twenty-three are now being installed. Three hundred and twenty-six certificates have been issued.

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ELECTRICAL INSPECTIONS

Table showing number of inspections made from Jan. 1 to Dec. 31, 1916.

Inspections	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
New installations,	306	223	318	323	388	364	321	364	301	397	366	337	4,008
Old installations,	30	27	31	24	21	23	18	29	13	15	19	19	269
Additions and alterations,	218	184	186	169	183	170	115	141	155	143	188	158	2,010
Temporary work,	8	2	5	6	6	8	1		4	3	8	11	62
Fixtures,	98	95	91	103	124	101	89	102	80	139	147	107	1,276
New electric signs,	2	2	6	7	8	5	9	3	4	2	3	2	53
Totals,	662	533	637	632	730	671	553	639	557	699	731	634	7,678

Table showing number of defective installations discovered and corrected during the year from Jan. 1 to Dec. 31, 1916.

Defective Installations	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
New installations,	69	50	77	69	114	77	86	74	92	122	131	107	1,068
Old installations,	18	18	21	19	11	9	11	16	11	15	12	12	173
Additions and alterations,	44	24	32	30	22	29	17	20	41	28	36	33	356
Temporary work,				1		1						3	5
Fixtures,	31	25	28	40	35	24	16	29	17	32	41	24	342
New electric signs,		1											1
Totals,	162	118	158	159	182	140	130	139	161	197	220	179	1,945

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PLUMBING

Table showing number of Permits, Inspections, and Violations—1916.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Permits for work in new buildings,	48	33	52	43	62	75	51	70	39	53	62	56	644
Permits for work in old buildings,	33	25	51	60	69	57	58	63	65	62	45	53	641
Regular inspections,	204	157	244	298	339	346	277	352	286	363	294	284	3,444
Special investigations,	222	132	245	71	53	54	50	42	215	41	64	34	1,223
Violations,	3	5	6	3	3	4	4	6	5	5	7	3	54

Table showing number of Fixtures installed during 1916.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Water closets,	153	114	146	224	228	321	217	294	172	245	186	177	2,477
Lavatories,	146	141	139	201	214	304	218	294	194	221	201	149	2,422
Baths,	91	88	113	182	183	238	142	151	129	188	144	144	1,793
Laundry trays,	91	53	100	141	161	226	109	134	123	171	139	138	1,586
Sinks,	107	76	115	182	195	249	134	171	127	186	154	157	1,853
Urinals,	10	1		5	6	7	6	19		6		6	66
Totals,	598	473	613	935	987	1,345	826	1,063	745	1,017	824	771	10,197

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GAS FITTING

Table showing number of Permits, Inspections, and Violations—1916.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Permits—New Buildings,.....	36	37	49	33	52	61	44	63	44	57	48	44	568
Permits—Old Buildings,.....	8	14	37	37	23	20	24	24	13	16	18	10	244
Permits—Gas Fixtures,.....	24	17	17	17	16	20	28	18	25	33	17	29	260
Permits—Water Heaters,.....	10	12	17	33	40	133	34	44	43	22	30	28	447
Inspections—Piping and Fixtures,..	212	248	204	182	381	292	432	370	379	505	383	332	3,920
Inspections—Water Heaters,.....	124	201	481	188	43	122	35	58	53	63	77	61	1,506
Special Investigations,.....	5	5	19	39	19	29	15	30	20	11	17	37	246
Violations,.....	31	29	55	20	20	10	23	10	9	14	25	9	255

NOTE:—During the year, five hundred and fifty-eight certificates have been issued to the Springfield Gas Light Co. for meters and service.

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PROSECUTIONS.

With a broader knowledge among our citizens, of the requirements of the Building Ordinance, comes a better understanding of its benevolent purpose.

There has been but one prosecution during the year—a tenement house owner, who persisted in extinguishing the lights in the halls and stairways of his building in violation of the requirements of the law, was fined ten dollars.

BOARD OF APPEAL.

The Report of the Board of Appeal, together with its recommendations, is submitted herewith.

Respectfully,

FRED W. LUMIS,
Building Commissioner.

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REPORT

OF THE

BOARD OF APPEAL

SPRINGFIELD, MASS., December 28, 1916.

Honorable City Council, City of Springfield.

GENTLEMEN:—The Board of Appeal begs leave to submit herewith its annual report to your Honorable Body.

During the month of May, the Board forwarded to the Building Commissioner specifications restricting the use of certain outside covering material for frame dwelling houses.

No other business has come before the Board for its consideration.

The Board begs to call to your attention that a proposed state building law, now before a recess committee of the Legislature, provides for the repeal of the city's Enabling Act and Building Ordinance. It is our opinion that Springfield should be exempt from the provisions of this proposed law.

The Board would also beg to call to your attention the fact that the Building Department receives each year hundreds of complaints from property owners in various residential districts, stating that the indiscriminate erection of manufacturing, commerical, or tenement buildings in such districts is injurious; and the Board feels that to provide for a rational development of the city, power, if not already given, should be given to establish zones or districts within which no buildings of a character which will tend to depreciate property values should be erected.

It is with profound sorrow and regret that the Board has to report the death of Mr. James F. Walls, its senior member. The loss both to the city and to the Board is great.

Respectfully submitted,

THOMAS O'BRIEN,
D. W. MELLEN,
by GEO. C. GARDNER, *Chairman,*
Springfield Board of Appeal.

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DEPARTMENT OF LAW.

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REPORT

OF THE

DEPARTMENT OF LAW

To the City Council:—

As required by the provisions of the ordinance establishing the law department, I hereby transmit to the city council a report of the business done by the department during the last year.

At the beginning of the year the city was a party in seventy-three actions pending in the courts of the Commonwealth, classified as follows:—

Land-damage and water-damage cases arising from the construction of the new water works	27
Land-damage cases arising from the taking of land for public improvements	18
Actions of tort for personal injuries resulting from alleged defects in highways	15
Actions of contract for the collection of money due the city	10
Miscellaneous	3
Total	73

During the year thirty-one more cases have been begun, classified as follows:—

Land-damage cases arising from the taking of lands for public improvements	10
Actions of tort for personal injuries resulting from alleged defects in highways	14
Actions of contract for the collection of money due the city	4
Petitions for writs of certiorari	2
Miscellaneous	1
Total	31

There are now pending seventy-five cases, classified as follows:—

Land-damage and water-damage cases arising from the construction of the new water works	23

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Land damage cases arising from the taking of lands for public improvements	24
Actions of tort for personal injuries resulting from alleged defects in highways	16
Actions of contract for the collection of money due the city	7
Petitions for writs of certiorari	2
Miscellaneous	3
Total	75

Six cases have been tried during the year and twenty-three cases have been settled. Four important water department cases which have been pending for some time were settled during the year and it is hoped considerable progress will be made in adjusting the remaining actions during the coming year.

The city solicitor and assistant city solicitor were present at six meetings of the board on claims, during which eighty-six claims which might have led to suits were disposed of. There are now pending twenty-six small matters before the board.

Twenty-eight written opinions have been furnished the mayor and other officials, boards, or committees on subjects touching the duties of their respective offices.

Contracts, bonds, deeds, obligations, and other legal instruments to the number of two hundred ninety-four, which have been required in the city's business, have been drawn.

Ten ordinances have been scrutinized and approved.

The city solicitor has appeared before committees of the legislature on hearings twenty times during the year.

Respectfully submitted,

CHARLES H. BECKWITH, *City Solicitor.*

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PARK COMMISSIONERS.

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REPORT

OF THE

PARK COMMISSIONERS

To His Honor, the Mayor, and the City Council of the City of Springfield:—

As required by the Revised Laws of the Commonwealth of Massachusetts of 1902, Chapter 28, Section 13, entitled "Of Public Parks, Playgrounds and Public Domain," the Board of Park Commissioners of the City of Springfield have the honor to submit their thirty-fourth (34th) annual report for the year ending November 30, 1916.

The board was organized for the year with Stanhope E. Blunt, president, and Charles E. Ladd, secretary, the present members of the board being Stanhope E. Blunt, Nathan D. Bill, Theodor R. Geisel, Andrew J. Flanagan, and Newrie D. Winter.

Everett H. Barney, who was a member of this board, died March 31, 1916. Mr. Barney was appointed a park commissioner in 1890 and served until 1914, when he was retired on account of poor health and was made an honorary member of the board for life. Mr. Barney's long and useful life in Springfield is familiar to all, and as a member of this board he gave liberally both of his time and his money in beautifying the city through a well-developed system of parks.

Daniel J. Marsh, a member of the first Board of Park Commissioners, which was established in 1883, resigned as an active member of this board during the past year, and was appointed an honorary member for life. To Mr. Marsh more than to any other individual is Springfield indebted for her beautiful parks, and it is a matter of general regret that he cannot longer continue in this work for which he was so well adapted and which he so loved.

The number of parks under the control of this department is 57, with a total acreage of 613.57 acres.

Notwithstanding the unusually wet spring, together with a labor strike, both of which seriously impeded the progress of our work, we were able to carry out a number of important improvements. Among those

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made during the past year possibly no improvement was more appreciated or more needed than the building of tar macadam roads at Forest Park. A liberal amount of this work was done, including the main entrance drive from Sumner avenue, the double roadway leading from the Menagerie building north, and the roads around the Rose Garden. In making these permanent improvements to the roads it became necessary to widen many of them to meet the requirements of the automobiles. This was true regarding the roadway on the north side of the Rose Garden, which was increased in width to 30 feet, thereby providing ample room for the parking of automobiles at this place without blocking the road. The drive leading from the Rose Garden down the hill to the skating pond has been straightened and widened and the grade cut down. It was covered with cinders and rolled, but on account of the lateness of the season before this preliminary work could be done, we were unable to finish this section of the road. We trust a liberal appropriation will be made for the coming year for permanent road work at this park. Another improvement in connection with the roads at Forest Park that is deserving of mention at this time is the new layout and change of the grade of Long Hill street. By an agreement with Mr. Fred T. Ley representing the abutters on the northerly side of Long Hill street, he agreed to lay out Long Hill street from Washington boulevard to the easterly entrance to the Barney estate 100 feet wide, to make the necessary changes in the grade, and to lower the water and sewer pipes, at no expense to the city. In consideration for doing this work this board, with the approval of the City Council, deeded to the abutters the narrow strip of land lying between the northerly line of Long Hill street and the property of the abutters. This is the first step in the development of the southern approach to the city, which will eventually include the building of a new bridge over Pecousic brook, the necessary changes on Pecousic hill, and also the widening of that section of Pecousic avenue which is under the jurisdiction of this board to Long Hill street. While it may be some years before all of these improvements can be made the work already begun on Long Hill street conforms to the general plan of the final development of this section.

In addition to the work on the roads at Forest Park, considerable attention has been given to the trees. Many of the chestnuts, which have died as the result of the ravages of the chestnut blight, have been removed and several hundred trees, principally oaks and maples, have been set out to replace them. This work must be continued for some years to come if the reforestation of this beautiful park is to be accomplished.

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The Rose Garden has proved all that could be desired in the short space of time since it was started, and from early summer until late in the season it has attracted many visitors.

At Van Horn Reservoir Park a number of improvements have been made. The main drive leading through the park has been completed. This is very attractive and affords the public an opportunity of seeing what has already been accomplished together with the possibilities for the future development of this park. The planting of many trees and shrubs, the building of the cobblestone entrances, and the removal of many of the dead trees, in addition to the general cleaning-up of the park, are some of the more noticeable improvements which have been undertaken during the year. Some work has been done on the athletic field, but until such a time as that portion of the field belonging to the Water Department shall be transferred to this department, it seems unwise to make any extended improvements. As this section of the city develops the value of the park with its many and varied attractions will be more appreciated.

In our budget for 1916 an appropriation was requested for the improvement of Stearns Square, which was refused. In the plan for the development of this square the walks on the easterly and westerly sides of the park were to be discontinued and made a part of the park. At this suggestion the abutters opposite the park still persisted in their efforts to appropriate a portion of this gift for widening the streets and sidewalks in front of their own property. They maintained that these walks were a part of the street and under the jurisdiction of the City Council. Their objection served to hold up the appropriation for making the much-needed improvements. In order that the exact legal status of the walks might be determined this matter was referred by the City Council to the City Solicitor. After a very thorough and exhaustive investigation the City Solicitor gave an opinion in which he stated that the sidewalks were a part of the original gift and absolutely under the jurisdiction of this board. It is to be hoped that his opinion has removed the last stumbling block in the way of the development of Stearns Square. We have approved an entirely different plan from the one made by Olmsted Brothers, which was accepted by the Planning Commission and this board last year. We believe that this new plan better meets the needs of the public, will be equally as attractive, and can be carried out with a considerable saving in cost. We shall include in our budget an estimate for making these improvements.

Under the will of the late Mr. Gurdon Bill his beautiful residence

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and about eight acres of land was left to the city, and also the sum of five thousand ($5,000) dollars for the purpose of developing this tract as a park and arboretum. By a provision in the will the Springfield Home for Aged Men was to have the use of the house as a home and a small plot of land for a garden. After conferring with the managers of the Home it was agreed that the interests of all concerned would be best served by removing the house and barn and utilizing all of the land for a park and arboretum. This arrangement was entirely satisfactory to the managers of the Home, as well as to the heirs of Mr. Bill. In addition to the bequest of Mr. Bill his children have since given two thousand ($2,000) dollars and a strip of land on the westerly side of the park running from Liberty street to Warwick avenue. Plans have been made and approved for the development of this park. They call for the regrading of the grounds, building a drive leading through the park from Liberty street to Genesee street, and the laying out of footpaths. In addition to the trees already growing here, which include a number of excellent specimens, many new trees and shrubs of both rare and common varieties will be planted. Each specimen will bear a label giving both the botanical and common names, thus affording the botanist and the lover of nature an opportunity for study. At the westerly end of the park a playground will be laid out and equipped with suitable apparatus for the use of the smaller children. In the ravine at the easterly side of the park a small pond will be made for aquatic plants. This pond can be used for skating during the winter.

RECREATION.

During the year, eighteen playgrounds, two swimming pools, and six social centers were in operation. On account of an epidemic of infantile paralysis which occurred during the summer it seemed advisable to discontinue many of the activities at the playgrounds which under ordinary conditions would have taken place. This was true regarding the evening out-of-door social dancing which had proved so popular last year, as well as many of the inter-playground meets. While none of the playgrounds were closed, the attendance in some sections of the city was noticeably affected. Co-operating with the local Board of Health, the instructors at the several playgrounds throughout the city were able to render good service by reporting each day all cases of children coming to the playgrounds from infected districts outside of our city. All such cases were immediately investigated by the Board of Health, and the children thus reported were not allowed to visit the playgrounds for a period of at least two weeks. The two swimming pools proved a great

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blessing during the hot summer months and attracted many people. The enlarged accommodations both at the Water Shops and at Loon Pond were greatly appreciated.

When the social centers were first started in Springfield an agreement was made between the committee in charge of physical education of the School Board and the committee on recreation of this board that the activities to be carried on at the social centers should be limited to social dancing and such games and physical exercises as would ordinarily be included in the work of a gymnasium. The claim was made by the members from the School Board that the inclusion of lectures and other educational features would conflict with the function of the educational board. Following this plan for the past two seasons we are free to say that while the social centers have proved popular and have attracted many people, especially the younger element, we have been unable to minister as we believe we should to the needs of the communities in which the centers are located. We believe that a broader and more comprehensive plan of operation, including the organization of social clubs, musical entertainments, lectures, stereopticon, and other events helpful to the general uplift of the people should be added to what is already provided. We therefore feel that the existing agreement limiting the scope of our work at the social centers should be discontinued, and we shall at an early date take steps to see that it is done.

The demand for a social center in that section of the city north of the arch between Main and Chestnut streets is quite apparent, but until such time as the large school building on Franklin street now under construction is completed, little can be done for this section. Another part of the city sadly in need of the center is that section lying south of Elm street and west of Main street, but at present there is no building available for such purposes. The addition to the Howard Street School, when completed, will provide ample room for a center.

Below is the financial statement, giving the receipts and expenditures for the year:—

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FINANCIAL STATEMENT.

RECEIPTS.

Appropriation, 1916,	$111,552.52	
Available for re-appropriation,	233.10	
		$111,785.62

EXPENDITURES.

PARKS.			
Administration,		$14,407.57	
Operation, Transportation,	$13,173.26		
Zoological Div.,	9,923.33		
Botanical Div.,	3,727.65		
Care and Maintenance, Forest Park,	28,511.68		
Care and Maintenance, Van Horn Park,	4,094.95		
Care and Maintenance, Small Parks,	4,580.77		
Repairs and Replacements, Equipment,	1,288.50		
New Equipment,	3,332.17		
Property Improvement,	3,121.45		
		71,753.76	
ENTERTAINMENT.			
Administration,		2,186.26	
Operation, Playgrounds,	$12,465.74		
Social Centers,	2,630.98		
Swimming Pools,	2,979.76		
Replacement and Repairs Equipment,	3,664.96		
		21,741.44	
Celebrations and Entertainments,		746.95	
Drinking Fountains,		344.90	
Balance,		604.74	
			$111,785.62

VAN HORN SPECIAL APPROPRIATION.

Receipts, Balance from 1915,		$3,050.00
Expenditures, Labor and Material,	$1,777.45	
Balance,	1,272.55	
		$3,050.00

COURT SQUARE EXTENSION.

Receipts, Balance from 1915,	$30,580.03	
Interest,	754.65	
		$31,334.68
Expenditures, Labor and Material,	$825.19	
Balance to 1917,	30,509.49	
		$31,334.68

GERRISH PARK FUND.

Balance from 1915,	$586.01

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SHERMAN D. PORTER FUND.

Bequest of Sherman D. Porter, . . .	$10,042.47	
Interest, ...	251.06	
		$10,293.53

STANHOPE E. BLUNT,
NATHAN D. BILL,
THEO. R. GEISEL,
NEWRIE D. WINTER,
Board of Park Commissioners.

CHARLES E. LADD, *Secretary.*

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LICENSE COMMISSIONERS.

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REPORT

OF THE

BOARD OF LICENSE COMMISSIONERS

SPRINGFIELD, MASS., December 1, 1916.

To His Honor, the Mayor, and the City Council of the City of Springfield:—

The Board of License Commissioners beg to submit their annual report for 1916.

The Licenses granted to date, to expire May 1, 1917, are as follows:—

COMMON VICTUALERS—FIRST CLASS.

To sell liquors of any kind to be drunk on the premises. Fee, $1,500 each.

Beach & Kane,	173 Chestnut street.
Biscotti, Frank,	202-206 Dwight street, Biscotti Cafe Co.
Breglio, P. A., & Co.,	347–349 Dwight and 319–323 Worthington streets.
Bresnahan, Jas. F., & Co.,	483 Main and 18 Market streets.
Bresnahan & Buckley,	734–736 Main street.
Burke, Thos. J., & Co.,	521 Main and 4 Stockbridge streets.
Burke & Glynn,	514 Worthington street.
Cone, Wm. H., & Co.,	11 Hampden street.
Coughlin, John H.,	116 State street.
Crowley, M. J., Co., Inc.,	485 State and 3 Walnut streets.
Delaney, Bernard J., Co.,	603 Main street.
Donovan, J. B., & Co.,	23 Walnut street.
Donovan, M. J., & Co.,	179 Main and 11 Ferry streets.
Duquette, A. H., & Co.,	552 Main street.
Farland, Fred, & Co.,	547½ Main and 4 Cross streets.
Gunderman, Geo. H., & Co.,	218 Worthington street.
Guyott & Co.,	225 Main street.
Hohenberger, H. S., & Co.,	121–123 Water street.
Kellt, John B., & Co.,	167 Bridge street.
Kernan, Jas. F.,	642 North and 173 Sharon streets.
Lange, Theodor, & Co.,	249 Bridge street.
Lennehan, J. J., & Co.,	215–217 Worthington street.
Lubold, H. E., & Co.,	11 Lyman street.
Maloney, James, & Co.,	27 Market and 13–15 Sanford streets.

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Maloney, Patrick F., & Co.,	50 Sanford and 64 Bridge streets.
Murphy, C. J., & Co.,	329 Worthington street.
Murphy, Jeremiah,	8 Walnut street.
Murphy, Wm. J., & Co.,	45–47 Market street.
O'Brien & Co., P. J.,	228 Chestnut street.
Phillips, C. W., & Co.,	64 Bridge and 71 Water streets.
Pessolano & Mazzaferro,	333 Water street.
Reidy, John A., & Co.,	157 Main and 10 Sharon streets.
Roos, Maximilian, & Co.,	69 Water street.
Scully, J. F., & Co.,	660½ Main street.
Shea, J. J., Co., Inc.,	864 North and 86 Essex streets.
Splaine Bros.,	12 Sanford and 34 Market streets.
Sullivan, Daniel F.,	282 Main street, I. O.
Sullivan, P. F., Co., Inc.,	209 Chestnut and 131 Lyman streets.
Sullivan & O'Connor,	190 Main street.
The Sullivan Co., Inc.,	196 Ferry and 609 North streets.
Toole, John J., & Co.,	69–71–73 Market street.
Toomey & Cody Co., Inc.,	143 Main and 8 Congress streets.
Walsh, Frank J., & Co.,	3–5–7 E. Court and 50 Sanford streets.
Ward, Wm. T., & Co.,	6–6½ Liberty street.
Welch, T. P., & Co.,	191–193 Main street.
Winkler Bros.,	63 Bridge and 79 Water streets.
Young, Wm. M.,	145 Main and 7 Congress streets.
Zimmerman, Louis B.,	121 Lyman street.

Number of First Class Licenses, 48.

WHOLESALE—FOURTH CLASS (CLASS W).

To sell liquors of any kind not to be drunk on the premises. Fee, $2,000 each.

Barry, Garratt S.,	271 Bridge and 6–8 Barnes streets.
Coates, E. M., Co., Inc.,	5–11 Market street.
Flanaghan, T., Co., Inc.,	100 State street.
Jefferson & Deeley,	214 Worthington street.
Kushner, Isaac,	169½ Main street.
Rieutord, Chas. E.,	146 Main and 18 Oak streets, I. O.
Tone, Phil, & Co.,	591 Main and 125 Union streets.
Toomey & Cody Co., Inc.,	135–137–139–141 Main street.
Young, Wm. M.,	147–147½ Main street.

Number of Wholesale Licenses, Class W, 9.

FOURTH CLASS (CLASS R).

To sell liquors of any kind not to be drunk on the premises. Fee, $1,500 each.

Albano Bros.,	732 Main and Lombard streets.
Beach & Kane,	171A Chestnut street.

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Breglio, P. A., & Co.,	343–345 Dwight street.
Brewer, H. & J., Co.,	404 Dwight street.
Burke, Thos. J., & Co.,	517 Main street.
Cornell, S. A., Co.,	119 Lyman street.
Curran, Wm. J., & Co.,	25 Market and 17 Sanford streets.
Delaney, Bernard J., Co.,	599 Main street.
Dillon, James F., & Co.,	704 Main street.
Doyle, George W., Co.,	560 Main street.
Hiltz, M. E.,	74 Water street.
Leonard, John J., & Co.,	296 N. Main street.
McNamara, Dennis, & Co.,	282–286 Main street, I. O.
Murphy, C. J., & Co.,	333 Worthington street.
Murphy, Wm. J., & Co.,	17 E. Court street.
Ryan, S. A., & Co., Inc.,	183 Main street.
Shea, M. F., Co.,	850–854 North and 83 Essex streets.
Spaight, Daniel,	188 Main street.
The Howard Co.,	21–23 Lyman street.
Walsh, John J., & Co.,	25 Walnut street.

Number of Fourth Class Licenses, Class R, 20.

BREWERS—FIFTH CLASS.

Fee, $2,700 each.

Springfield Breweries Co., Liberty Branch,	Liberty and Charles streets.
Springfield Breweries Co., Springfield Branch,	Fort and Water streets.
Springfield Breweries Co., Highland Branch,	1273 State street.

Number of Brewers' Licenses, 3.

INNHOLDERS—FIRST AND FOURTH CLASSES.

To sell liquor of any kind. Fee, $2,250 each.

Bellevue Hotel Co.,	267–269 Main and 4–6 Taylor streets.
Chandler Hotel, Louis Katz,	Main and Bliss streets.
Court Square Hotel,	92–96 State street and 12–14 Court House Place.
Empire Hotel Co.,	657–659–659½ Main street.
Gilmore Hotel Co.,	418–428 Main street.
Hampden Hotel Co.,	Hotel Kimball, Chestnut and Bridge streets.
Hartenstein, Louis B.,	Russell Hotel, 224–226–230 Main street.
Hartt, John E., & Co.,	93–95 State street.
Henking Hotel Co., G. S. Henking,	15–17 Lyman street.
Indian Leap Hotel Co.,	179 Main street, I. O.

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McCarthy, J. J., & Co.,	American House, 243–249 Main street.
National House, Chas. Grise & Co.,	13 Oak street, I. O.
Seiver, D. H., & Co.,	Hillman and Barnes streets.
Shean, C. T., & Co.,	Cooley Hotel, 211 Main street.
The New Haynes Hotel Co.,	8–10–12 Pynchon street.
Worthy Hotel, Inc.	303 Main and 169–187 Worthington streets.

Number of Innholders' Licenses, 16.

DRUGGISTS—SIXTH CLASS.

To sell liquors of any kind for medicinal, mechanical, and chemical purposes only. Fee, $1.00 each.

Adams, Chas. F.,	54 Walnut street.
Adams Drug Co., Inc.,	429 Main street.
Anderson, Edmund C.,	279 North Main street.
Barker, Irving R.,	32 Main street.
Bartlett, John L.,	749 Sumner avenue.
Beauvais, Fortunat,	510 North Main street.
Beauvais, Joseph H.,	570 Main street.
Blanc, Neil,	728 North street.
Bligh, Edward W.,	369 Chestnut street.
Cabana, Geo.,	298 Franklin street.
Chenette, Joseph E.,	164 Main street, I. O.
Clancy, Daniel M.,	152 Main street, I. O.
Cunningham, A. W.,	272 Worthington street.
Dearborn, Harold W.,	1081 State street.
Delehanty, James W.,	492 Mill street.
Dickinson, Homer F.,	298 Belmont avenue.
Dooley, Timothy J.,	267 Central street.
Ellis, Aaron M.,	1332 North street.
Elsey, Harry P.,	593 Main street.
Erard, Philip V.,	398 North Main street.
Hayn, Herman,	807 Main street.
Herbert, Wm. H.,	155 Sherman street.
Johnson, Marshall R.,	188 State street.
Jorczak, J. S.,	2 Parker street, I. O.
Keefe, Daniel F.,	180 Hancock street.
Leary, Arthur J.,	296 Hancock street.
Leighton, Percy,	21 White street.
Leonard, Edwin F.,	72 Main street.
Lerche, Albert,	325 Main street.
Lohr, Albert N.,	438 Chestnut street.
McCarthy, Thomas F.,	512 Sumner avenue.
McGinty, Edward,	188 Eastern avenue.
McGinty, John A.,	561 Worthington street.
Mongeau, Paul,	218 Main street, I. O.

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Nagle, Wm. S.,	59 Sumner avenue.
Noble, William B.,	167 Chestnut street.
O'Connell, J. W., Inc.,	477 State street.
Page, Otto A. F.,	377–379 Main street.
Roger, Robert,	308 Main street.
Rudden, Eugene P.,	591 Liberty street.
Ryan, Chas. V.,	194–196 Main street.
Sadler, Wm. L.,	530–532 Main street.
Shea, Stephen A.,	827 State street.
Slavin, Wm. J., Eastern Drug Co.,	228 Eastern avenue.
Smith, Fred H., treas.,	372 Belmont avenue.
Smith, John D.,	271 Main street.
Stone, Frank S.,	463 Main street.
Sunter, Alex. E.,	85 Wilbraham road.
Sunter, William,	165 Oakland street.
Sweeney, Edward J.,	428 Plainfield street.
Taylor, Albert W.,	326 North Main street.
Terney, Louis B.,	1171 North street.
Thompson, F. W.,	503 Main street.
Vezina, Raoul J.,	441 Armory street.
Volley, Alice W. S.,	360 Bay street.
Welch, John H.,	554 Belmont avenue.
Wheeler, Fred N.,	802 State street.

Total number of Druggists' Licenses, 57.

DRUGGISTS—SIXTH CLASS.

Issued between December 1, 1915, and May 1, 1916.

December 23, 1915,	George E. Cabana,	294 Franklin street.
January 28, 1916,	Fortunat M. Beauvais,	510 N. Main street.
January 28, 1916,	Michael Goodman,	1332 North street.
January 28, 1916,	William Sunter,	165 Oakland street.
February 18, 1916,	A. E. Carrier,	643 Main street.

CLUB LICENSES.

To distribute and dispense intoxicating liquors to members. Fee, $300 each.

B. K. Bruce Club,	542 Main street.
Colony Club,	50 Maple street.
Nayasset Club,	61–67 State street.
Springfield Lodge of Elks, No. 61,	311 State street.
Springfield Turnverein,	79–83 State street.

Total Number of Club Licenses, 5.

Number of First, Fourth, and Fifth Class Licenses,	96
Number of Sixth Class Licenses,	57
Number of Club Licenses,	5
Total number of Liquor Licenses,	158

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There were 199 Special Sunday Licenses granted for the sale of ice cream, candy, fruit, etc., on the Lord's Day, at $5.00 each. Also 106 Common Victualers' and 7 Innholders' Licenses at $5.00 each.

Meetings were held December 23, 1915; January 11 and 28; February 18; March 16 and 31; April 5, 7, and 27; May 11 and 16; June 16; July 11; August 4, 9, 10, and 31; October 3; November 3 and 6, 1916.

On January 11, 1916, Club License held by Springfield Lodge of Elks, No. 61, and exercised at Elks Club House, corner Chestnut and Worthington streets, was cancelled. Club License granted to Springfield Lodge of Elks, No. 61, to be exercised at Elks Club House, 311 State street.

On February 18, 1916, Sixth Class Druggists' License held by E. Joseph Pheulpin, and exercised at 238 North Main street, was cancelled.

March 31, 1916, First Class Liquor License, No. 6, granted to W. J. Curran & Co., and exercised at 27 Market and 15 Sanford streets, was cancelled, and First Class Liquor License granted to Maloney & Buckley, to be exercised at 27 Market and 15 Sanford streets.

First Class Liquor License granted to P. J. Missett & Co., and exercised at 560 Main street, was cancelled. Fourth Class Liquor License granted to George W. Doyle & Co., to be exercised at 560 Main street.

First Class Liquor License, No. 44, granted to John A. Fitzpatrick & Co., and exercised at 190 Main street, was cancelled. First Class Liquor License granted to Sullivan & O'Connor, to be exercised at 190 Main street.

May 16, 1916, First Class Liquor License granted to P. J. O'Brien & Co., and exercised at 228 Chestnut street, was cancelled. First Class Liquor License granted to P. J. O'Brien & Co., to be exercised at 685 North street.

July 11, 1916, First Class Liquor License granted to C. W. Phillips & Co., to be exercised at 64 Bridge and 71 Water streets, was cancelled. First Class Liquor License was granted to John T. Cunningham and Joseph M. LaChappelle, to be exercised at 64 Bridge and 71 Water streets.

August 4, 1916, Sixth Class Druggists' License granted to Edward W. Bligh, and exercised at 369 Chestnut street, was cancelled. Sixth Class Druggists' License granted to Mrs. Theresa Rearden, to be exercised at 369 Chestnut street.

Innholders' License, First Class Liquor License, and Innholders' Liquor License granted to the New Haynes Hotel Co., to be exercised at 400 Main street, 8–10–12 Pynchon street, was cancelled. Innholders' License, First Class Liquor License, and Innholders' License granted to

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the New Haynes Hotel Co., to be exercised at 400 Main street, and 8–10–12–14 Pynchon street.

August 10, 1916, Board voted to suspend First Class Liquor License, No. 76, granted by this Board, April 7, 1916, to John J. McCarthy & Co., and to be exercised at the American House, 243–249 Main street. Also Fourth Class Innholders' Liquor License, No. 108, granted by this Board, April 7, 1916, to John J. McCarthy & Co., and to be exercised at the American House, 243–249 Main street, suspension period beginning Saturday, August 12, 1916, at 11 P.M., until Saturday, September 2, 1916, at 6 A.M.

August 31, 1916, Fourth Class R Liquor License granted to Daniel Spaight, to be exercised at 188 Main street, was cancelled. Fourth Class Retail Liquor License was granted to Henry J. Glickman, to be exercised at 188 Main street.

First Class Liquor License, No. 42, and Fourth Class R Liquor License, No. 52, granted to C. J. Murphy and William J. Shea, and to be exercised at 329–333 Worthington street, was cancelled, to take effect October 3, 1916.

First Class Liquor License, No. 42, and Fourth Class R Liquor License, No. 52, granted to C. J. Murphy and Caroline I. Murphy, to be exercised at 329–333 Worthington street, to take effect October 3, 1916.

November 3, 1916, First Class Liquor License, No. 97, granted to P. J. O'Brien and T. H. O'Brien, and to be exercised at 685 North and 89 Congress streets, was cancelled. First Class Liquor License, No. 97, granted to The P. J. O'Brien Co., Inc., to be exercised at No. 685 North and 89 Congress streets.

First Class Liquor License, No. 64, granted to George B. Gunderman and Louise B. Gunderman, to be exercised at 208 Worthington street, was cancelled. First Class Liquor License, No. 64, granted to Owen Morris, Alexander A. Joslin, and Roy A. Joslin, to be exercised at 208 Worthington street.

November 6, 1916, First Class Liquor License, No. 43, and Fourth Class R Liquor License, No. 53, granted to William J. Murphy & Co., to be exercised at 45–47 Market street, and 17 E. Court street, was cancelled. First Class Liquor License, No. 43, and Fourth Class R Liquor License, No. 53, granted to The William J. Murphy Co., to be exercised at 45–47 Market and 17 E. Court streets.

Mr. John H. Clune's term of office expired June 1, 1916, and Mr. Frederick J. Hillman was appointed a member of the Board to serve a term of 6 years.

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The expenses of the Board for the year were as follows:—

Salary,	$250.00
Salary of Clerk,	150.00
Printing,	54.60
Total,	$454.60

Respectfully submitted,

GEORGE G. TAIT,
HUGH J. DONNELLY,
FREDERICK J. HILLMAN,
Board of License Commissioners.

GEORGE G. TAIT, *Secretary.*

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CITY CLERK'S REPORT.

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CITY CLERK'S REPORT

CITY CLERK'S OFFICE, ADMINISTRATION BUILDING,
January 8, 1917.

To the City Council of the City of Springfield:—

I herewith submit the following report for the year ending November 30, 1916.

The amount of fees received by me for official services, from December 1, 1915, to December 1, 1916, is as follows, said sum having been paid by me to the City Treasurer:—

For marriage certificates,	$1,282.00
For copies of record,	158.85
For recording and indexing dog licenses,	466.00
For examining record,	.25
For kerosene and gasoline certificates,	14.00

For recording and indexing the following papers:—

Mortgages on personal property,	$417.55
Discharges of mortgages,	72.70
Assignments of mortgages,	13.90
Voluntary assignments,	18.00
Attachments of personal property,	1.50
Recording assignments,	15.75
Bills of sale,	36.25
Notices of foreclosure,	12.10
Married women's certificates,	15.50
Leases,	17.90
Contracts,	25.25
Interest,	27.65
Assignment of claim,	.75
Partial release,	.25
Marriage record,	5.00
Lien,	.45
Discharge of partnership,	.25
Discharge of attachment,	.25
Assignment of estate,	.25
Notice,	.25
	$2,602.60

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There has been paid to the County Treasurer the sum of $5,171.00, being the amount due the County of Hampden for dog licenses, less fees for recording, from December 1, 1915, to December 1, 1916.

The sum of $1,845.00, amount due for 5 hunters' licenses at $10 each, and 1,795 at $1.00 each, has been paid to the State.

E. A. NEWELL, *City Clerk.*

SPRINGFIELD, MASS., January 8, 1917.

I hereby certify that the foregoing report of the City Clerk is correct, as per his records and receipts on file in his office.

WM. G. McINTYRE,
City Auditor.

The number of marriage intentions filed during the year is	1,287
The number of marriages for the year is	1,554
The number of deaths for the year is	2,000
The number of births for the year is	3,600

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VOTERS AND REGISTRATION.

The following table shows the number of men and women who registered as voters in 1915 and 1916:—

1915.					1916.				
Ward.	Precinct.	Men.	Women.	Total.	Ward.	Precinct.	Men.	Women.	Total.
1	A	92	2	94	1	A	110	1	111
1	B	59	20	79	1	B	118	4	122
1	C	75	14	89	1	C	99	3	102
1	D	49	17	66	1	D	71	1	72
1	E	78	20	98	2	A	81	1	82
2	A	153	8	161	2	B	86	1	87
2	B	93	2	95	2	C	85	2	87
3	A	48	7	55	2	D	74	0	74
3	B	66	3	69	2	E	63	2	65
4	A	47	29	76	3	A	51	0	51
4	B	66	25	91	3	B	89	1	90
4	C	53	53	106	3	C	62	1	63
4	D	35	22	57	3	D	73	2	75
5	A	53	106	159	4	A	69	5	74
5	B	77	24	101	4	B	86	1	87
6	A	84	1	85	4	C	64	1	65
6	B	91	25	116	4	D	47	2	49
7	A	50	4	54	5	A	55	2	57
7	B	76	31	107	5	B	28	7	35
7	C	34	43	77	5	C	35	3	38
7	D	55	19	74	5	D	66	7	73
7	E	60	26	86	6	A	48	1	49
7	F	59	7	66	6	B	44	5	49
8	A	56	52	108	6	C	49	4	53
8	B	69	19	88	6	D	41	1	42
8	C	57	26	83	7	A	47	0	47
8	D	72	28	100	7	B	64	3	67
8	E	56	9	65	7	C	61	1	62
					7	D	73	2	75
					8	A	31	0	31
		1,858	642	2,500	8	B	68	0	68
					8	C	85	7	92
					8	D	69	3	72
					8	E	61	1	62
					8	F	53	0	53
							2,306	75	2,381

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The following table shows the number of assessed polls and the number of men and women on the voting list at the city elections December, 1915 and 1916:—

1915.					1916.				
Ward.	Precinct.	Assessed Polls.	Men.	Women.	Ward.	Precinct.	Assessed Polls.	Men.	Women.
1	A	1,335	724	4	1	A	1,148	595	4
1	B	1,190	762	31	1	B	955	620	17
1	C	1,265	672	29	1	C	1,046	660	25
1	D	1,118	716	30	1	D	775	519	17
1	E	1,379	820	38	2	A	1,168	581	26
2	A	1,641	784	18	2	B	1,195	579	18
2	B	1,598	498	8	2	C	2,025	631	9
3	A	785	335	13	2	D	933	550	10
3	B	835	412	5	2	E	928	585	28
4	A	736	396	60	3	A	718	393	6
4	B	1,019	414	52	3	B	1,089	521	50
4	C	811	589	139	3	C	947	442	54
4	D	665	430	44	3	D	1,474	564	27
5	A	1,170	884	205	4	A	895	614	80
5	B	1,385	774	51	4	B	1,168	651	25
6	A	1,346	455	8	4	C	1,003	603	25
6	B	1,488	823	51	4	D	871	623	33
7	A	914	543	22	5	A	1,045	637	65
7	B	1,339	974	58	5	B	581	516	127
7	C	849	668	74	5	C	739	540	86
7	D	883	644	32	5	D	1,044	584	90
7	E	1,122	833	35	6	A	961	433	9
7	F	905	645	15	6	B	736	481	44
8	A	822	593	88	6	C	775	627	68
8	B	1,010	590	26	6	D	699	543	40
8	C	900	557	40	7	A	834	610	13
8	D	1,284	800	41	7	B	693	550	27
8	E	2,106	794	15	7	C	790	605	13
					7	D	901	657	12
		31,900	18,129	1,232	8	A	402	248	5
					8	B	872	510	21
					8	C	836	533	39
					8	D	1,051	665	16
					8	E	957	511	12
					8	F	1,187	357	0
							33,436	19,338	1,141

Respectfully submitted,

E. A. NEWELL, *City Clerk.*

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JURY LIST.

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CITY OF SPRINGFIELD.

LIST OF JURORS, 1916.

NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Abbe, Charles E.,	105 Revere st.,	Grain Dealer, 488 Mill st.
Abbe, Clifford T.,	96 Wilbraham road,	Salesman, 564 Worthington st.
Abbe, J. Edgar,	1015 Liberty st.,	Contractor & Builder, 1015 Liberty st.
Abbe, Ralph H.,	64 Scott st.,	Clerk, 195 State st.
Abbey, Sanford H.,	233 White st.,	Carpenter, 293 Bridge st.
Abbott, John J.,	494 Chestnut st.,	Printer, 29 Worthington st.
Adams, Charles F.,	89 Walnut st.,	Druggist, 54 Walnut st.
Adams, George E.,	158 Washington road,	Manager, 101 Liberty st.
Adams, Henry J.,	278 Center st., I. O.,	Clerk, B. & A. Freight House, Athol Branch.
Adams, Walter,	44 Dover st.,	Florist, 44 Dover st.
Aiken, Edward L.,	22 Albemarle st.,	Manager, Fairfield, Conn.
Aitken, Mark,	80 Magnolia ter.,	Florist, 484 Main st.
Albee, Julian R.,	29 Irvington ave.,	Laundry Business, 870 State st.
Alderman, Oliver C.,	39 Mountainview st.,	Merchant, 227 Worthington st.
Aldrich, Raymond H.,	1130 State st.,	Clerk, 788 State st.
Aldrich, William O.,	40 Plainfield st.,	Clerk, 119 Lyman st.
Alexander, Albert L.,	142 State st.,	Real Estate Dealer, 332 Main st.
Allen, Charles B.,	545 State st.,	Bond Salesman, Western Mass.
Allen, Clarence W.,	1401 State st.,	Proprietor, 18-20 Cypress ct.
Allen, Edwin,	15 Sachem st.,	Manager, 244 Main st.
Allen, George W.,	20 Greenleaf st.,	Plumber, 20 Greenleaf st.
Allen, Luther S.,	32 Pleasant st.,	Foreman, Spfd. St. Dept.
Allis, Charles A.,	143 Carew st.,	Steam Fitter, 59 Fort st.
Allis, E. Milton,	115 Garfield st.,	General Agent, 500 Main st.
Alport, Lisle I.,	211 Main st.,	Junk Dealer, 54 Colton st.
Alvord, Hugh H.,	19 Albemarle st.,	Buyer, 211 Worthington st.
Amann, Henry J.,	444 Belmont ave.,	Foreman, 381 Main st.
Amann, Walter A.,	71 Beaumont st.,	Printer, 381 Main st.
Ambrose, Robert J.,	27 Monroe st.,	Receiving Clerk, 58 Harrison ave.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Ames, Herbert L.,	15 Sachem st.,	Bookkeeper, 392 Main st.
Amidon, Edgar H.,	Myrtle ter.,	Clerk, Page blvd.
Anderson, Arthur S.,	57 Clarendon st.,	Advertising Manager, 500 Main st.
Anderson, Arthur W.,	94 Massachusetts ave.,	Machinist, 837 State st.
Anderson, Charles J.,	24 Eddywood ave.,	Wholesale Millinery, 360 Main st.
Anderton, Henry,	191 Carew st.,	Real Estate Dealer, 191 Carew st.
Andrews, Charles E.,	W. S. Parker st., I. O.,	Farmer.
Andrews, Howard P.,	127 Spring st.,	Manager Ludlow Mfg Co., Ludlow, Mass.
Andrews, Orlin D.,	367 Allen st.,	Body Maker, 53 Wilbraham road
Andrews, William F.,	190 Buckingham st.,	Dentist, 318 Main st.
Angers, Joseph A.,	367 Eastern ave.,	Lumber Business, 367 Eastern ave.
Anthony, Albert,	55 Winthrop st.,	Cigar Maker, 32 Hampden st.
Appleton, Allen L.,	334 Maple st.,	Private Secretary, 313 Maple st.
Appleton, Edward A.,	313 Maple st.,	Private Secretary, 313 Maple st.
Arens, Frederick H.,	260 Orange st.,	Cigar Maker, 309 Main st.
Armstrong, George,	17 Hooker st.,	Lithographer Cutter, 294 Plainfield st.
Armstrong, John Henry,	82 Pearl st.,	Foreman, 283 Worthington st.
Asher, Albert F.,	38 Grosvenor st.,	Proprietor, 48 Main st.
Ashley, Charles W.,	15 Middlesex st.,	Steam Fitter, 240 Main st.
Ashton, Charles A.,	35 Morgan st.,	Tool Maker, 65 Main st., Chicopee Falls.
Ashton, Percy V.,	67 Wilmont st.,	Driver, 333 Bridge st.
Atherton, Frank H.,	19 Arch st.,	Recorder, B. & M. Freight Office.
Atkins, Charles H.,	683 Main st.,	Inventor and Manufacturer, 539 Worthington st.
Atkins, Clarence J.,	35 Ashley st.,	Machinist, Stockbridge st.
Atkins, Percy B.,	179 Thompson st.,	Traveling Salesman, Willow st.
Austin, Leonard J.,	362 Mill st.,	Electrician, 310 Main st.
Ayer, Erbert W.,	78 Adams st.,	Electrician, Court House place.
Ayres, Harry A.,	9 Grant st.,	Shipping Clerk, 36 Harrison ave.
Babcock, William W.,	79 James st.,	Clerk, 430 Chestnut st.
Bagley, John J.,	746 St. James ave.,	Laundryman, 21 Clinton st.
Bailey, Irwin B.,	365 Central st.,	Retired.
Bailey, Robert N.,	34 Douglas st.,	Superintendent, Rendering Co., Brightwood.
Bailey, Theodore F., Jr.,	95 Cambridge st.,	Insurance Agent, 317 Main st.
Baker, Asa G.,	6 Cornell st.,	Publisher, 16 Worthington st.
Baker, Donald M.,	192 Maple st.,	Laboratory-man, Armory st.
Baker, Robert E.,	22 Forest st.,	Tea & Coffee Dealer, 22 Forest st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Baker, William A.,	53 Bond st.,	Painter, 419 Main st.
Baldrick, James R.,	154 Myrtle st., I. O.,	Secretary, Bosch Magneto Co., North Main st.
Ball, Joseph O.,	62 Clarendon st.,	Salesman, Central Falls, N. Y.
Barber, Edward J.,	42 Barber st.,	Salesman, 756 State st.
Barber, John H.,	37 Sargeant st.,	Night Clerk, 251 Main st.
Bardwell, William S.,	S. S. Allen st.,	Farmhand, c. Allen st. & Sumner ave.
Barker, Irvin R.,	95 Yale st.,	Druggist, 32 Main st.
Barker, Winfred W.,	421 Armory st.,	Compositor, 381 Main st.
Barlow, Moses M.,	10 Kibbe ave.,	Chauffeur, 234 Pearl st.
Barlow, Seth H.,	80 Dartmouth st.,	Real Estate Dealer, 163 Spring st.
Barnaby, David R.,	3 Central st.,	Hotel Clerk, 303 Main st.
Barnes, Eugene H.,	6 Geraldine court,	Floorman, 289 Main st.
Barnes, James,	233 Main st.,	Instructor, 233 Main st.
Barney, Herbert B.,	37 Elmwood st.,	Milkman, 18 York st.
Barr, Frederick W.,	137 Yale st.,	Clerk, 317 Main st.
Barrett, Arnold L.,	47 Forest st.,	Clerk, 195 State st.
Barrett, Gilbert R.,	85 Cleveland st.,	Compositor, 29 Worthington st.
Barrett, Harry F.,	10 Chestnut st.,	Real Estate Dealer, 318 Main st.
Barrett, John W.,	24 Daytona st.,	Plumber, 3 Cooley place.
Barri, John A.,	346 Maple st.,	Coal, Grain & Hay Dealer, 746 No. Washington ave., Bridgeport, Conn.
Barrus, Clifton L.,	21 Jefferson ave.,	Milk Peddler, 21 Jefferson ave.
Bartlett, Arthur L.,	36 Commonwealth av.,	Salesman, 3 Post Office square.
Bartlett, Charles L.,	78 Florence st.,	Instructor, Stockbridge st.
Bartlett, Frederick W.,	152 College st.,	Clerk Oak st., Chicopee Falls.
Bartlett, Owen J.,	24 Prince st.,	Machinist, foot of Church st., W. Spfd.
Bascom, Homer E.,	5 Bloomfield st.,	Machinist, Stockbridge st.
Bates, Ernest G.,	10 Berkeley st.,	Plumbing Inspector, Municipal Building.
Bates, Harrison J. L.,	47 Shillingford st.,	Pressman, 338 Worthington st.
Bates, Pearl,	66 Crystal ave.,	Manager, 17 Taylor st.
Beahn, James F.,	14 Grosvenor st.,	Contractor, 14 Grosvenor st.
Beals, Frank W.,	530 Sumner ave.,	Mechanic, Stockbridge st.
Beaman, William W.,	220 High st.,	Master Painter, 220 High st.
Beamon, William A.,	261 No. Main st.,	Salesman, 261 No. Main st.
Bean, George S.,	10 Johnson st.,	Salesman E. G. Hastings, Suffield, Conn.
Bearg, Benjamin,	46 Huntington st.,	Merchant Tailor, 157 Main st.
Beauchemin, Amedee,	17 Howard place,	Machinist, 837 State st.
Beaudry, Joseph,	49 Melrose court,	Painter, 49 Melrose st.
Beaudry, William H.,	154 Cedar st.,	Gas Fitter, 35-39 State st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Beaune, Charles J.,	29 Wendell ave.,	Barber, 3 Pynchon st.
Bechberger, William A.,	25 Thompson st.,	Purchasing Agent, Oak st., Chicopee Falls.
Bedford, Frank M.,	129 Catharine st.,	Plasterer, 129 Catharine st.
Beebe, Heber H.,	318 Eastern ave.,	Real Estate Dealer, 318 Eastern ave.
Beebe, Henry J., Jr.,	42 Ridgewood place,	Manager, 32 Main st.
Beebe, Wilfred E.,	15 Florida st.,	Plumber, 15 Florida st.
Behan, Hubert F.,	98 Bridge st.,	Wire Weaver, Heywood st. and Warwick st.
Belcher, Fred L.,	20 Vermont st.,	Purchasing Agent, 35-39 State st.
Belden, Frank H., Jr.,	71 Firglade ave.,	Manager, 34 Sanford st.
Bellamy, Thomas A.,	127 Patton st.,	Boiler Maker, foot of Church st., W. Spfd.
Belli, William Bartholomew,	123 Federal st.,	Traveling Salesman, 101 Lyman st.
Bellows, Charles W.,	60 Harvey st.,	Machinist, 48 Hampden st.
Bemis, Charles A.,	31 Northampton ave.,	Assistant Treasurer, 30 Lyman st.
Bennett, Albert G.,	30 Kenwood ter.,	Credit Manager, 307 Main st.
Bennett, Charles M.,	164 Pendleton ave.,	Cabinet Maker, 850 State st.
Bennett, Chauncey A.,	47 Marble st.,	Insurance Agent, 25 Harrison ave.
Benson, Clarence A.,	S. S. Allen st.,	Foreman, 156 Wason ave.
Bentley, Frederick E.,	109 Oak st.,	Wood Finisher, Birnie ave.
Benton, John H.,	17 Howard place,	Printer, 35 Dwight st.
Berard, Silas M.,	263 White st.,	Machinist, 53 Wilbraham road.
Bergdoll, Frederick,	304 Liberty st.,	Paper Cutter, Warwick st.
Bernstein, Louis,	33 Holyoke st.,	Tailor, 121 State st.
Berry, Robert,	152 Allen st.,	Blacksmith, 454 Walnut st.
Berryman, Richard,	40 Wight place,	Carpenter, 499 Main st.
Besse, Arthur L.,	29 Ingersoll grove,	Storekeeper, 350 Main st.
Bettigole, Benjamin,	62 Howard st.,	Merchant, 554 Main st.
Bidwell, Frank E.,	601 No. Main st.,	Manufacturer, 25 Harrison ave.
Birchard, Arthur R.,	61 Locust st.,	Publisher, 264 Main st.
Bird, Frank G.,	1232 North st.,	Machinist, 123 Carew st.
Bishop, Myron H.,	27 Daytona st.,	Salesman, 350 Main st.
Bissonnette, Napoleon P.,	83 Central st.,	Traveling Salesman, 83 Central st.
Blackmer, Elmer J.,	122 Benton st.,	Decorator, 122 Benton st.
Blair, William A.,	63 Colonial ave.,	Clerk, 195 State st.
Blair, William S.,	94 Orleans st.,	Painter, Vernon st.
Blanchard, Edward J.,	60 Scott st.,	Decorator, 2-3 Court House place.
Blauvelt, Frederick E.,	57 Marble st.,	Bookkeeper, 38 Cass st.
Bliss, Edgar C.,	55 Dresden st.,	Clerk, 211 Main st.
Bliss, Edward S.,	40 Scott st.,	Manager, 35-39 State st.
Bliss, George G.,	153 Bowles st.,	Baker, 153 Bowles st.
Blodgett, E. Fred,	402 Central st.,	Mason & Builder, 402 Central st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Blodgett, Leslie S.,	41 McKnight st.,	Teamster, 22 Taylor st.
Boden, Joseph H.,	55 Bryant st.,	Motorman, 5 No. Main st.
Bodurtha, Addison P.,	34 Calhoun st.,	Shipping Clerk, 2 New Bridge st., W Spfd.
Boecklen, Thomas H.,	28 Acushnet ave.,	Lithographer, Cor. Cross and Willow sts.
Bond, George R.,	26 Mulberry st.,	Not employed.
Booth, William H.,	34 Murray Hill av.,	Machinist, Stockbridge st.
Bordeaux, Joseph H.,	65 Central st.,	Shade Maker, 46 Harrison ave.
Bordeaux, Louis J.,	34 Thompson st.,	Printer, 216 Worthington st.
Bosworth, Charles F.,	14 Monmouth st.,	Clerk, 500 Main st.
Bosworth, Herbert E.,	6 Temple st.,	Photographer, 317 Main st.
Bowen, Arthur L.,	444 Central st.,	Retired.
Bowler, James F.,	336 Eastern ave.,	Polisher, 983 Main st.
Bowler, James L.,	21 Continental st.,	Real Estate Dealer, 21 Continental st.
Bowles, Charles A.,	81 Mulberry st.,	Commission Broker, 317 Main st.
Bowers, Charles D.,	366 Union st.,	Not employed.
Bowman, William George,	61 Oak st., I. O.,	Printer, A. H. Bartlett, Ludlow.
Bozenhard, Adolph,	408 Plainfield st.,	Proprietor, 421 Plainfield st.
Bradford, Edward S., Jr.,	359 State st.,	Treasurer, Rowland ave.
Bradley, Wallace H.,	51 Mountainview st.,	Manager, 35 State st.
Bradley, Walter A.,	17 Spruce st.,	Steel Turner, Stockbridge st.
Bradway, Foster H.,	62 Avon place,	Clerk, 35-39 State st.
Brass, Clifford H.,	226 Allen st.,	Polisher, Stockbridge st.
Brayton, Henry A.,	101 Acushnet ave.,	Painter and Decorator, 393 Orange st.
Breakey, George M.,	45 Berkeley st.,	Expressman, 45 Berkeley st.
Brearley, John,	553 Union st.,	Clerk, 500 Main st.
Breck, Martin B.,	138 Catharine st.,	Storekeeper, 472 Main st.
Breman, Christopher,	62 Montmorenci st.,	Lard Refiner, Brightwood.
Brennan, Frederick W.,	15 Clinton st.,	Funeral Director, 15 Clinton st.
Brennan, George F.,	38 Osgood st.,	Laborer, Employed by the city.
Brennan, James J.,	48 Grover st.,	Contractor, 48 Grover st.
Brennan, Matthew J.,	268 Central st.,	Printer, 58 Harrison ave.
Brennan, Michael J.,	80 Bradford st.,	Brewery Worker, 54 Fort st.
Brigham, Fred C.,	147 Pineywoods ave.,	Superintendent, 25 Harrison ave.
Brigham, George S.,	344 St. James ave.,	Salesman, 390-396 Main st.
Brockett, Ralph W.,	393 Union st.,	Bookkeeper, 241 Main st.
Brooks, Charles W.,	55 Catharine st.,	Janitor, 370-376 Main st.
Brooks, Francis E.,	13 Gray's ave.,	Bottler, 9 Gray's ave.
Brooks, Joshua L.,	42 Monmouth st.,	President, 140 Wilbraham ave.
Broughton, Louis S.,	200 Northampton ave.,	Grocer, 194 Pine st.
Brouilette, Albert G.,	11 Maynard st.,	Salesman, 41 Hampden st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Brouillette, Alfred G.,	38 Acushnet ave.,	Grocery Clerk, 92 Eastern ave.
Brown, Frank A.,	224 Main st.,	Retired.
Brown, Franklin D.,	75 Hampden st., I. O.,	Machinist, 837 State st.
Brown, Fred R.,	37 Magnolia ter.,	Wholesale Grocer, 180 Lyman st.
Brown, George K.,	16 Worcester ave.,	Foreman, Wason ave.
Brown, Walter E.,	125 Berkshire st., I. O.,	Draftsman, Wason ave.
Brown, Samuel F.,	78 Worcester st., I. O.,	Pattern Maker, 86 Broadway, Chicopee Falls.
Brownell, Edward C.,	42 Wilbraham ave.,	Coal Dealer, Waltham ave.
Brunton, Thomas E. Jr.,	89 Cherrelyn ave.,	Wire Weaver, Heywood st.
Brunton, Thomas F.,	89 Cherrelyn ave.,	Watchman, Heywood st.
Buchanan, George H.,	940 Worthington st.,	Shipping Clerk, Warwick st.
Buck, Howard O.,	59 Princeton st.,	Superintendent, Sewer Department.
Buckley, David,	13 Granville st.,	Janitor, 264 North Main st.
Buckley, Edward L.,	155 Belmont ave.,	Restaurant Keeper, 18 Third st., Troy, N. Y.
Buckley, Joseph H.,	66 Cumberland st.,	Foreman, North Main st.
Bugbee, Ephraim J.,	125 Pine st.,	Printer, 77 Worthington st.
Bugbee, Ernest D.,	208 Long Hill st.,	Merchant, 399 Main st.
Bull, Harcourt Wesson,	128 Mill st.,	Manufacturer, 476 Main st.
Burbank, Harry H.,	139 Worcester st., I. O.,	Mechanic, Worcester st., I. O.
Burdick, Arthur W.,	25 Lebanon st.,	Machinist, Stockbridge st.
Burger, Charles E.,	93 Park st.,	Sign Painter, 150 Bridge st.
Burgin, Alfred,	12 Ashmun st.,	Awning Maker, 96 Adams st.
Burke, John C.,	32 Jefferson ave.,	Meats and Grocer, 74 Main st
Burke, John Frances,	19 Warner st.,	Steamfitter, Hendee Mfg. Co., East Springfield.
Burke, John J.,	51 Vinton st.,	Bookkeeper, Williams Building, Stearns square.
Burke, Joseph H.,	62 Locust st.,	Engineer, 983 Main st.
Burke, Lawrence J.,	49 Sherman st.,	Machinist, 837 State st.
Burke, William J.,	40 Glendell ter.,	Merchant, 74 Main st.
Burlingame, Allen,	41 Tyler st.,	Veterinary Surgeon, 41 Tyler st.
Burnett, George Welstood,	115 Revere st.,	Painter, 115 Revere st.
Burns, Stephen P.,	108 Byers st.,	Superintendent, Municipal Building.
Burroughs, Henry W.,	7 Nelson st.,	Painter, 5 North Main st.
Burt, Charles E.,	19 Belgrade pl.,	Printer, 331 Dwight st.
Burt, Clarence A.,	17 Dartmouth st.,	Real Estate Dealer, 25 Elm st.
Burt, Lafayette F.,	54 Saratoga st.,	Proprietor, 565½ Main st.
Busch, John W.,	84 Chestnut st., I. O.,	Foreman, Pine st., I. O.
Bushy, Fred,	216 Worcester st., I. O.	Shop Hand, Pine st., I. O.
Butler, Arthur,	57 Abbe ave.,	Foreman, Plainfield st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Butler, George W.,	63 Dunmoreland st.,	Foreman, 100 Albemarle st.
Butterfield, George A.,	90 Monmouth st.,	Advertising Agent, 29 Worthington st.
Butterfield, Henry W.,	10 Monmouth st.,	Traveling Salesman, 18 Lyman st.
Buxton, Hartley B.,	112 Princeton st.,	Clerk, 837 State st.
Byrne, Edward P.,	699 Belmont ave.,	Civil Engineer, 17 Hampden st
Byrnes, John F.,	63 Charles st.,	Stereotyper, Unemployed.
Cadwell, Charles A.,	82 Mapledell st.,	Undertaker, 307 State st.
Cady, Ernest L.,	36 Wilmont st.,	Printer, 56 Harrison ave.
Cady, Sidney H.,	122 Lebanon st.,	Cabinet Maker, 122 Lebanon st.
Calderwood, Edwin C.,	59 Fairfield st.,	Wholesale Grocer, 245 Chestnut st.
Call, Arthur A.,	29 Locust st.,	Grocer, 144 State st.
Call, Raymond A.,	18 Greene st.,	Music Teacher, 18 Greene st.
Callahan, Jeremiah,	129 Ingersoll Grove,	Real Estate Dealer, 129 Ingersoll Grove.
Callahan, Thomas P.,	333 Franklin st.,	Foreman, for the City.
Calnen, Thomas John,	120 Calhoun st.,	Polisher, 837 State st.
Cameron, C. E. Alonzo,	174 Pineywoods ave.,	Proprietor, 151 Bridge st.
Camp, C. Herbert,	64 Hobson st.,	Tailor, Unemployed.
Cannon, John P.,	49 Linden st.,	Claim Adjuster, 29 Worthington st.
Canty, Paul E.,	26 High st.,	Electrician, 3 Court House place.
Cape, Charles W.,	582 Armory st.,	Steel Engraver, 582 Armory st.
Carey, Thomas E.,	36 Orlando st.,	Printer, 292 Main st.
Carey, William E.,	218 Fort Pleasant ave.,	Liquor Dealer, 135 Main st.
Cargill, H. Albert,	47 Trafton road,	Clerk, 35 State st.
Carleton, Guy,	161 High st.,	Printer, 2 Woodworth ave.
Carlisle, Samuel R.,	158 Forest Park ave.,	Coal Dealer, 3 Elm st.
Carman, Carroll W.,	13 Forest st.,	Clerk, 597 Main st.
Carman, Julius F.,	266 Belmont ave.,	Grocer, 597 Main st.
Carmody, Frank C.,	373 Armory st.,	Steam Fitter, 373 Armory st.
Carmody, Thomas J.,	47 Biltmore st.,	Bricklayer, 499 Main st.
Carmody, Thomas J.,	373 Armory st.,	Bricklayer, 32 Maynard st.
Carney, John J.,	15 Cleveland st.,	Meat Cutter, 445 Armory st.
Carrigan, Edward H.,	114 Massasoit st.,	Compositor, 381 Main st.
Carroll, Thomas F.,	62 Massachusetts ave.,	Machimist, 837 State st.
Carty, Patrick H.,	59 Ringgold st.,	Foreman, Mittineague.
Casey, Edward J.,	3 Hillside place,	Foreman Printer, 138 Wilbraham ave.
Casey, John,	55 Grosvenor st.,	Foreman, for the City.
Cassidy, Henry C.,	323 Central st.,	Traveling Salesman, G. F. Farrington & Co., New York.
Caswell, Henry H.,	20 Stratford ter.,	Secretary, 75 Temple st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION
Chaffee, Frank B.,	34 Gordon st.,	Assistant Manager, 25 Fort st.
Chalker, Frank J.,	14 Howard st.,	Salesman, 14 Sanford st.
Chamberlin, George H.,	53 Firglade ave.,	Assistant Superintendent, Stockbridge st.
Chandler, Louis J.,	667 State st.,	Manufacturer, Napier st.
Chapin, Charles L.,	290 State st.,	President and Treasurer, 317 Main st.
Chapin, Fred D.,	12 Brookline ave.,	Merchant, 23 Osgood st.
Chapin, Henry G.,	353 Maple st.,	Manufacturer, 317 Main st. and Russell, Mass.
Chapin, Horatio T.,	166 Liberty st.,	Stockyard Keeper, 71 Colton st.
Chapin, Ralph R.,	39 Claremont st.,	Clerk, 407 Main st.
Chapin, Roy C.,	74 Vermont st.,	Bookkeeper, 407 Main st.
Chapin, William H.,	140 Chestnut st.,	Retired.
Chapin, Winfield E.,	336 Chestnut st.,	Machinist, Wason ave.
Chapman, Frank H.,	125 Yale st.,	Auto Dealer, 824 State st.
Chapman, Lynde B.,	7 Marble st.,	Shipping Clerk, 55 Lyman st.
Charron, Moses J.,	53 Winthrop st.,	Clerk, 389 Main st.
Chauncey, Byron A.,	17 Windsor st.,	Clerk, 21 Cypress st.
Childs, Robert C.,	97 Johnson st.,	Electrician, 97 Johnson st.
Chilson, Arthur A.,	48 Monmouth st.,	Agent, N. Y., N. H. & H. R. R.
Chism, David E.,	26 Hawthorne st.,	Equipment Engineer, 275 Main st.
Christensen, Rudolph W.,	960 St. James ave.,	Machinist, 837 State st.
Christianson, John,	r. 195 White st.,	Ice Peddler, 195 White st.
Chrystal, James W.,	774 State st.,	Clerk, 499 Main st.
Clark, Andrew,	75 Dwight st.,	Real Estate and Insurance Agent.
Clark, Charles H.,	829 Main st.,	Grocer, 829 Main st.
Clark, Clarence O.,	33 Edwards st.,	Clerk, 225 Liberty st.
Clark, George W.,	14 Belmont place,	Photo Engraver, 3 Post Office sq.
Clark, Harry P.,	49 Queen st.,	Machinist, East Springfield.
Clark, Michael F.,	27 Waverly st.,	Tinner & Plumber, 215 No. Main st.
Castle, Clifford DeW.,	210 Maple st.,	Olive Oil Importer, 49 Lyman st.
Clairmont, Edward T.,	158 Walnut st.,	Waiter, 4 Walnut st.
Clapp, George O.,	4 Chestnut st.,	Plumber & Steam Fitter, 56 Florence st.
Clark, Frank,	r. 477 Worthington st.,	Laborer, B. & M. R. R., W. Spfd.
Clay, Orren G.,	33 Lester st.,	Carpenter, 655 Worthington st.
Cleary, John V.,	400 Chestnut st.,	Window Trimmer, 349-359 Main st.
Cleary, William E.,	33 (c) Main st.,	Real Estate Dealer, 414 Main st.
Clements, William G.,	61 Dunmoreland st.,	Machinist, B. & M. R. R.
Clough, Robert C.,	309 Birnie ave.,	Tire Maker, Oak st., Chicopee Falls.
Clutterbuck, Will E. E.,	224 Main st.,	Clerk, 224 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Cobb, Edmund J.,	73 Acushnet ave.,	Printer, 21 Cypress st.
Cobb, Percy H.,	19 Albemarle st.,	Accountant, 283 Worthington st.
Coe, Louis S.,	61 Oak Grove ave.,	Commercial Traveler, Plympton & Hills, Hartford, Ct.
Cogger, William,	406 Walnut st.,	Advertising Solicitor, 292 Main st.
Coggin, Frederick L.,	134 Princeton st.,	Traveling Salesman, National Blank Book Co., Riverside.
Cohen, Julius A.,	31 Maple st.,	Merchant, 421 Main st.
Cohn, William O.,	268 Washington blvd.,	Art Director, 29 Worthington st.
Collins, Edward W.,	60 Vinton st.,	Wire Weaver, Heywood st.
Collins, Frederick P.,	527 White st.,	Laborer, Forest Park.
Collins, James R.,	71 Auburn st.,	Machinist, c. Emery & Fulton sts.
Collins, John J.,	31 Underwood st.,	Electrician, 3 Court House place.
Collins, Patrick J.,	36 Albemarle st.,	Contractor, 36 Albemarle st.
Collins, Stephen J.,	34 Church st.,	Merchant, 10 Main st.
Collins, Timothy J.,	320 Franklin st.,	Electrical Contractor, 3 Court House place.
Collins, William M.,	34 Church st.,	Traveling Salesman, 34 Church st.
Collman, Julius Cisae,	21½ Bancroft st.,	Chemist, 151 Dwight st.
Coltman, Richard S.,	110 Clarendon st.,	Retired.
Colton, Howard C.,	216 Pine st.,	Traveling Salesman, 30-32 Lyman st.
Colwell, Harding H.,	84 Oak St., I. O.,	Commercial Traveler, 130 Lyman st.
Comans, Andrew P.,	36 Ft. Pleasant ave.,	Printer, 292 Main st.
Combs, Arthur P.,	115 Florence st.,	Milk Dealer, 115 Florence st.
Congdon, Herbert B.,	84 Stebbins st.,	Painter, 84 Stebbins st.
Congdon, Oscar R.,	87 Bancroft st.,	Clerk, 390 Bridge st.
Conlin, Bernard J.,	42 Bancroft st.,	Plumber, 19 Worthington st.
Conlin, John M.,	102 Whittier ave.,	Printer, 381 Main st.
Connell, George C.,	105 Commonwealth ave.,	Printer, 29 Worthington st.
Connell, William J.,	764 Worthington st.,	Pressman, 17 Worthington st.
Connor, John H.,	58 Adams st.,	Cigar Maker, 260 Main st.
Connors, George B.,	203 Pendleton ave.,	Machinist, foot of Church st., W. Spfd.
Conroy, Patrick T.,	43 Franklin st.,	Butcher, 121 Main st.
Converse, Fred F.,	79 Vermont st.,	Carpenter, 150-156 Birnie ave.
Converse, Melville S.,	76 Amherst st.,	Coal Dealer, 422 Main st.
Converse, Wallace J.,	636 Sumner ave.,	Foreman, 107 Pecousic ave.
Cook, George S.,	1450 North st.,	Merchant, 41 Cypress st.
Cook, Robert L.,	42 Cherryvale ave.,	Merchant, 318 Main st.
Cooley, Moses L.,	93 Acushnet ave.,	Merchant, 605 Main st.
Cooper, Charles F.,	179 Wilbraham road,	Bookkeeper, 852 State st.
Cooper, John A.,	176 Union st.,	Janitor, 338 Worthington st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Cordner, Samuel J.,	6 Monmouth st.,	Oil Dealer, 22 Taylor st.
Cordner, Thomas G.,	433 Bay st.,	Contractor, 433 Bay st.
Corey, Henry E.,	41 Euclid ave.,	President, 225 Liberty st.
Corliss, Thomas M.,	109 Everett st.,	Clerk, 392-396 Main st.
Cornell, Julius Myron,	16 Prospect ter.,	Dentist, 120 Main st.
Cosgrove, James S.,	59 Broad st.,	Steam Fitter, 18 Willow st.
Cote, Alphonse,	30 Worcester ave.,	Grocer, 536 Plainfield st.
Coughlin, Thomas J.,	109 King st.,	Machinist, 837 State st.
Courtney, John John,	65 Morris st.,	Blacksmith, foot of Church st., W. Spfd.
Courtney, Patrick,	23 Butler st.,	Attendant, Court st.
Cowles, Edward C.,	66 Belmont ave.,	Department Manager, 390-396 Main st.
Cowles, Fred R.,	15 Ozark st.,	Clerk, 65 Lyman st.
Cowles, George H.,	28 Dunmoreland st.,	Fish Dealer, 108 Dwight st.
Cox, John Donald,	107 Albemarle st.,	Salesman, Worcester & Hartford.
Crafts, Royal L.,	E. S. Parker st.,	Foreman, for the City.
Crafts, William H.,	156 Allen st.,	Fish Business, 156 Allen st.
Craig, Harold J.,	15 Mapledell st.,	Foreman, 65 Main st., Chicopee Falls.
Craig, Joseph W.,	360 Eastern ave.,	Plumber, 19 Worthington st.
Craig, L. Bertram,	501 Allen st.,	Carpet Layer, 357 Main st.
Craig, Samuel,	45 Crestwood st.,	Foreman, foot of Grape st., Chicopee.
Cram, Harry G.,	7 Central st.,	Drop Forger, foot of Depot st., Chicopee.
Crane, Alfred S.,	61 Dartmouth st.,	Real Estate Dealer, 285 Main st.
Crane, John P.,	13 Oak st., I. O.,	Superintendent, Indian Orchard Co., I. O.
Cronin, William L.,	651 Sumner ave.,	Salesman, 164 Birnie ave.
Crowe, William F.,	186 Westford ave.,	Clerk, 5 North Main st.
Crowley, Francis P.,	485 State st.,	Hotel Keeper, 485 State st.
Crowley, John J.,	95 Central st.,	Foreman, 58 Harrison ave.
Crowley, Michael,	67 Cass st.,	Janitor, 236 Main st.
Crowningshield, Charles H.,	29 Boylston st.,	Laundryman, 78½ Bliss st.
Crowther, Stanley B.,	19 Hawthorne st.,	Clerk, 108 Main st.
Cuff, Daniel F.,	741 St. James ave.,	Granite Cutter, Pine Point.
Cuff, John,	741 St. James ave.,	Salesman, Pine Point.
Culver, Charles R.,	30 Churchill st.,	Vice-president, 461 Worthington st.
Culver, Fred L.,	15 Girard ave.,	Road Master, 236 Main st.
Culver, John W.,	82 Vermont st.,	Reporter, 305 Worthington st.
Cummings, Alexander, Jr.,	174 Allen st.,	Salesman, 123 Carew st.
Cunliffe, J. William,	51 Middlesex st.,	Real Estate Dealer, 23 Court st.
Curley, Eugene F.,	41 Grenada ter.,	Printer, 29 Worthington st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Curran, John,	33 Collins st.,	Paver, Court st.
Cushman, Henry H.,	20 Vinton st.,	Foreman, Warwick st.
Cutler, Myron R.,	66 Union st.,	Paper Cutter, 140 Wilbraham ave.
Dady, John,	557 Armory st.,	Machinist, 837 State st.
Dale, Walter C.,	879 Worthington st.,	Drop Forger, foot of Depot st., Chicopee.
Daley, Edward J.,	38 Melrose st.,	Clerk, foot of Church st., West Springfield.
Daly, Daniel J.,	17 Chase ave.,	Manager, 29 Worthington st.
Daly, John E.,	25 Essex st.,	Hack Driver, 25 Essex st.
Damon, Walter H.,	32 Bancroft st.,	Superintendent, 73 State st.
Daniel, Harry,	26 Massachusetts ave.,	Clothier, 277 Main st.
Davenport, Edwin A.,	95 Lyndale st.,	Teller, 372 Main st.
Davis, Edward T.,	31 Maple st.,	Plumber, 398 Bridge st.
Davis, Edwards O.,	244 Oak st., I. O.,	Assistant Manager, Pine st., I. O.
Davis, William W.,	182 Lebanon st.,	Builder, 182 Lebanon st.
Davitt, Daniel J.,	410 Liberty st.,	Proprietor, 191-211 Liberty st.
Dean, A. Lincoln,	46 Alderman st.,	Builder, 46 Alderman st.
Decker, Edward S., Jr.,	48 Harvard st.,	Clerk, 38 Cass st.
Decker, George H.,	161 Oak Grove ave.,	Lithographer, Waltham ave.
Degnan, Charles W.,	43 Franklin st.,	Foreman, N. Y., N. H. & H.
DeGolyer, Sydney B.,	351 Union st.,	Stock Clerk, Oak st., Chicopee Falls.
Denham, James R., 2d.,	46 Temple st.,	Manager, 157 State st.
Denver, William J.,	88 Commonwealth ave.,	Restaurant Keeper, Sumner ave.
Devine, Fred A.,	47 Riverview st.,	Manager, 267 Plainfield st.
Devine, Grover C.,	79 Walnut st.,	Starter, 5 North Main st.
Devine, John J.,	47 Riverview st.,	Conductor, 5 North Main st.
DeWolf, George W.,	415 Central st.,	Clerk, 532 Main st.
Dexter, Albert J.,	3 Hampden st., I. O.,	Draftsman, Pine st., I. O.
Dibble, Wallace E.,	884 Worthington st.,	Architect, 317 Main st.
Dickinson, Arthur C.,	172 Oak st., I. O.,	Gauge Maker, Page blvd.
Dickinson, Isaac L.,	643½ Main st.,	Auto Designer, 2 Park st.
Dickinson, Oliver H.,	Holland road,	Seedsman, 436 Dwight st.
Dignan, Thomas,	50 Brookline ave.,	Steam Fitter, 32 Court st.
Dineen, Patrick,	116 Tenth st.,	Mason, not employed.
Dobson, Thomas A.,	178 Maple st.,	Manager, 137½ State st.
Dockham, George W., Jr.	N. S. Parker st., I. O.,	Shop Hand, 47 Hillman st.
Doersam, Franz Otto,	40 Murray Hill ave.,	Cigar Maker, 260 Main st.
Dolan, John E.,	83 Tyler st.,	Gas Fitter, 35-39 State st.
Donahue, Charles A.,	50 Edwards st.,	Contractor, 42 Harrison ave.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Donahue, Frank P.,	50 Edwards st.,	Plumbing Contractor, 42 Harrison ave.
Donnellan, Thomas F.,	117 Firglade ave.,	Wine Clerk, 355 Dwight st.
Donnelly, Edward H.,	30 Clinton st.,	Shipping Clerk, 837 State st.
Donnelly, Thomas J.,	33 Newland st.	Moving Picture Operator, 12 Taylor st.
Donoghue, James A.,	42 Morgan st.,	Caretaker, 216 Franklin st.
Donoghue, Michael,	10 Prospect ter,	Stone Cutter, Unemployed.
Donohue, John W.,	32 Plainfield st.,	Architect, 476 Main st.
Donovan, Frederick A.,	88 Tyler st.,	Clerk, 500 Main st.
Donovan, John T.,	56 Greenwood st.,	Merchant, 204 Main st.
Donovan, Thomas,	51 Cass st.,	Order Clerk, 245 Chestnut st.
Doubleday, Edwin C.,	216 Pearl st.,	Accountant, 293 Bridge st.
Dowd, George B.,	23 Beech st.,	Musician, 23 Beech st.
Dowd, John P.,	174 Bowdoin st.,	Shipping Clerk, 21 Cypress st.
Dowd, William F.,	18 Genesee st.,	Salesman, 41-45 Hampden st.
Dowd, William J.,	32 Chase ave.,	Barber, 211 Main st.
Downey, Daniel J.,	67 Bond st.,	Painter, B. & M. R. R.
Downey, Michael J.,	178 Bowdoin st.,	Foreman, Municipal Building.
Downey, William E.,	65 Moore st.,	Mechanic, 149 Wason ave.
Doyle, James Q.,	34 Bay st.,	Manager, 54 Fort st.
Doyle, John F.,	54 Webster st.,	Shipping Clerk, 67 Lyman st.
Doyle, John Raymond,	117 Patton st.,	Traveling Salesman, 117 Lyman st.
Doyle, William P.,	117 Patton st.,	Buyer, 390-396 Main st.
Drake, Albert E. W.,	145 Bowles st.,	Pressman, 381 Main st.
Drake, Arthur N.,	108 North Main st.,	Janitor, First Church.
Drake, J. Frank,	91 Mulberry st.,	Secretary, 17 Worthington st.
Drake, Frank,	130 Everett st.,	Plumber, 13 Market st.
Driscoll, Dennis J.,	29 Demond ave.,	Upholsterer, 390-396 Main st.
Driscoll, Timothy,	231 Tyler st.,	Mason Tender, 231 Tyler st.
Driscoll, Francis J.,	28 Everett st.,	Real Estate Dealer, 476 Main st.
Driscoll, Richard J.,	648 State st.,	Real Estate Dealer, 310 Main st.
Dumbleton, Frederick H.,	26 Euclid ave.,	Clerk, 26 Euclid ave.
Dumphy, Thomas L.,	341 Oakland st.,	Painter, 776 State st.
Dunn, George A.,	19 Laurel ave.,	Calender Foreman, 57 Willow st.
Dunn, James E.,	24 Congress st.,	Clerk, Not employed.
Dunn, Peter J.,	24 Congress st.,	Clerk, 249 Bridge st.
Dutton, Arthur C.,	36 Firglade ave.,	Lumber Dealer, 27 Besse place.
Dwight, Robert N.,	38 Margaret st.,	Clerk, 399 Main st.
Earl, Lewis M.,	121 Wilbraham road,	Engraver, 411 Main st.
Earle, William H.,	121 Cedar st.,	Merchant, 121 Cedar st.
Eastman, Alfred P.,	205 St. James ave.,	Compositor, 367 Worthington st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Eastman, Walter Ross,	467 Dickinson st.,	Painter, 467 Dickinson st.
Eastwood, George A.,	12 Hancock st.,	Traveling Salesman, Sargeant st., Holyoke.
Eaton, Frank S.,	1035 State st.,	Manager, 147 Dwight st.
Edmonds, John W.,	77 Manhattan st.,	Chauffeur, about the City.
Egan, John M.,	25 Cumberland st.,	Foreman, 214 Birnie ave.
Ehrlich, Mosis,	25 Lenox st.,	Coal Dealer, 105 Worthington st.
Eldred, Fred A.,	25 Westford ave.,	Druggist, Retired.
Elliot, J. Hamilton,	110 Wellington st.,	Builder, 110 Wellington st.
Ellis, Edward H., Jr.,	29 Firglade ave.,	Assistant Manager, 164 Dwight st.
Ellis, Thomas E.,	74 Willard ave.,	Grinder, Page blvd.
Elmer, Nelson L.,	642 State st.,	Real Estate Dealer, 642 State st.
Emerson, Edwin,	99 Jefferson ave.,	Foreman, Mittineague.
Emerson, Roy N.,	197 Massasoit st.,	Traveling Salesman, 197 Massasoit st.
Engel, Charles F.,	70 Andrew st.,	Leather Manufacturer, 92 Hayden st.
Engelhard, Frederick H.,	135 Greenwood st.,	Manager, 200 Franklin st.
Engle, Edward L.,	108 Byers st.,	Editor, 29 Worthington st.
Erard, Emile J.,	522 North Main st.,	Merchant, 512 North Main st.
Erard, Hector L.,	46 Douglas st.,	Sheet Metal Worker, 70 Hampden st.
Erard, Philip Valmore,	398 North Main st.,	Druggist, 398 North Main st.
Erickson, Charles E.,	Cor. State & Hawley sts.,	Machinist, 837 State st.
Erickson, Louis G.,	872 Liberty st.,	Soap Manufacturer, 872 Liberty st.
Evans, William,	144 Essex st.,	Foreman, for the City.
Ewig, Julius,	426 Sumner ave.,	Real Estate Dealer, 381 Main st.
Faber, Patrick H.,	29 Thompson st.,	Hotel Keeper, 29 Thompson st.
Fairfield, George W.,	94 Bowles st.,	Real Estate Dealer, 94 Bowles st.
Falt, Alonzo P.,	33 Berkeley st.,	Draftsman, 33 Lyman st.
Falt, J. Waldo,	39 Yale st.,	Draftsman, 33 Lyman st.
Farrell, John T.,	195 Chestnut st.,	Unemployed.
Farrell, Peter J., Jr.,	166 Bowdoin st.,	Shipping Clerk, Armory st.
Farrell, Thomas R.,	163 Bridge st.,	Cornice Maker, 80 Main st., West Springfield.
Farrelly, David K.,	23 Quincy st.,	Salesman, Congress st., Boston.
Feeney, John C.,	160 Carew st.,	Envelope Cutter, 143 Wilbraham ave.
Feighery, Frank J.,	47 Bradford st.,	General Agent, 318 Main st.
Fennyery, Botond J.,	300 Belmont ave.,	Merchant, 302 Belmont ave.
Fennyery, Lehel J.,	Taylor ave. (Franconia)	Die Sinker, Stockbridge st.
Fenton, Andrew J.,	82 Cherry st.,	Teamster, Forest Park.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION
Fenton, Thomas J.,	189 Walnut st.,	Machinist, 160 Wilbraham ave.
Ferre, Harold P.,	93 Marengo Park,	Purchasing Agent, 367 Worthington st.
Ferree, Frederick W.,	322 Union st.,	Transfer Clerk, 407 Main st.
Ferris, Charles H.,	34 Biltmore st.,	Bookkeeper, 398 Bridge st.
Field, Dwight A.,	99 Walnut st.,	Buffer, 56 Tyler st.
Fifield, Milton S.,	46 Locust st.,	Traveling Salesman, 902 South Main st.
Fillion, Henry C.,	W. S. Leavitt st.,	Printer, 279 Dwight st.
Finnerty, John F.,	558 Chestnut st.,	Driver, 305 State st.
Finnigan, James H.,	402 Allen st.,	Retired, 402 Allen st.
Finton, Thomas J.,	123 Essex st.,	Machinist, 19 Sharon st.
Fiske, Eugene E.,	53 Thompson st.,	Real Estate Dealer, 318 Main st.
Fiske, James W.,	32 Mapledell st.,	Auditor, 132-134 Cass st.
Fitzgerald, James J.,	731 Carew st.,	Water Inspector, Municipal Building.
Fitzgerald, James M.,	50 Winthrop st.,	Bookbinder, 56 Harrison ave.
Fitzgerald, Michael,	834 Carew st.,	Machinist, Oak st., Chicopee Falls.
Flagg, Charles W.,	Converse st.,	Teamster, South st.
Flagg, George F.,	656 State st.,	Real Estate Dealer, 656 State st.
Flagg, William H.,	601 Main st.,	Teamster, 125 Wilbraham road.
Flaherty, John T.,	13 Smith st.,	Tire Vulcanizer, 42 Dwight st.
Flanagan, Terrence J.,	57 Thompson st.,	Liquor Dealer, 100 State st.
Flannery, Edward J.,	100 Euclid ave.,	Clerk, 54 Fort st.
Fleming, David J.,	599 Plainfield st.,	Drop Forger, 837 State st.
Fleming, William H.,	101 Everett st.,	Hack Driver, 101 Everett st.
Fletcher, Albert L.,	97 Colton st.,	Foreman, Court st.
Fletcher, Harlan F.,	115 Thompson st.,	Traveling Salesman, W. F. Fletcher, Southwick.
Fletcher, Leon M.,	62 Temple st.,	Auditor, 15 Elm st.
Flynn, Cornelius,	191 Hampshire st., I. O.,	Foreman, B. & A. R. R.
Flynn, George W.,	30 Applewood place,	Machinist, 65 Main st., Chicopee Falls.
Flynn, James W.,	42 Huntington st.,	Foreman, 357 Main st.
Flynn, John,	448 Dickinson st.,	Barber, 7 Railroad st.
Foley, John, Jr.,	64 Grosvenor st.,	Salesman, 41-45 Hampden st.
Foley, Timothy J.,	98 Tyler st.,	Merchant, Cor. Tyler and Hancock sts.
Ford, William H., Jr.,	52 Crystal ave.,	Machinist, 43 Cross st.
Foskett, Harrison W.,	21 Maple st.,	Parcel Delivery, 21 Maple st.
Foster, Arthur A.,	W. S. Parker st., I. O.,	Farmer.
Foster, William,	15 Quincy st.,	Carpenter, 12 Cass st.
Fountain, Fred E.,	65 Knox st.,	Iron Worker, Heywood st.
Fowler, Dorr R.,	707 State st.,	Broker, 317 Main st.
Fowler, James,	35 Vassar st.,	Electrical Contractor, 310 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Francoeur, George,	30 Franklin st.,	Carpenter, 531 Worthington st.
Franklin, Alexander G.,	70 Ashley st.,	Cigar Maker, 68 Ashley st.
Fraser, Edward,	55 Talcott ave.,	Paper Maker, Brightwood.
Freedman, Edward S.,	7 Sumner ave.,	Manager, 421 Main st.
Freitag, Emil R.,	970 Worthington st.,	Machinist, 461 Worthington st.
French, John W.,	19 Cumberland st.,	Meat Cutter, 257 North Main st.
Frenier, Maxim O.,	581 Union st.,	Draughtsman, 53 Wilbraham ave.
Frisbie, Walter E.,	362 Wilbraham road,	Locksmith, 31 Lyman st.
Frissell, Fred B.,	11 Monmouth st.,	Oculist, 11 Monmouth st.
Fronk, William C.,	464 Wilbraham road,	Draughtsman, 65 Main st., Chicopee Falls.
Frost, Charles E.,	32 Emery st.,	Retired.
Fuller, Frank D.,	169 Princeton st.,	Vice-president, 336 Birnie ave.
Fuller, Frank E.,	62 Westminster st.,	Real Estate Dealer, 381 Main st.
Fuller, G. Clarence A.,	59 Oak st., I. O.,	Teaming and Trucking, Worcester st., I. O.
Fuller, Leslie C.,	W. S. Sixteen Acres road,	Farmer.
Fuller, Robert K.,	26 Westminster st.,	Cigar Manufacturer, 113 Lyman st.
Fulton, John B.,	68 Bradford st.,	Foreman, 88 Birnie ave.
Furrows, Albert H.,	38 Plymouth st.,	Collector, 51 Worthington st.
Furrows, Samuel E.,	118 Westford ave.,	Bookkeeper, 258 Main st.
Gagnier, Samuel J.,	32 Eagle st.,	Contractor and Builder, 44 Eagle st.
Galvin, James,	449 Union st.,	Carpet Cleaner, 40 Taylor st.
Gammons, William L.,	1604 North st.,	Bookkeeper, 500 Main st.
Gantt, Edwin W.,	43 Princeton st.,	Broker, 289 Main st.
Gardiner, Livingston R.,	103 Tyler st.,	Chauffeur, 149 Mill st.
Gardner, George H.,	37 Winthrop st.,	Upholsterer, 390-396 Main st.
Garvey, John F.,	42 Linden st.,	Barber, 156½ Main st.
Garvey, John H.,	340 Eastern ave.,	Carpenter, 109 Mill st.
Garvey, John J.,	27 Congress st.,	Floorwalker, 390-398 Main st.
Gaskell, Edward T.,	25 Brookline ave.,	News Dealer, 600 North Main st.
Gates, Albert W.,	15 Locust st.,	Electrician, 29 Worthington st.
Gault, J. Frank,	67 Bradford st.,	Machinist, B. & M. Shops.
Gaylord, Ralph W.,	95 Montrose st.,	Office Clerk, Stockbridge st.
Geary, J. Augustus,	72 Carew st.,	Traveling Salesman, 72 Carew st.
Geary, William,	21 Trafton road,	Merchant, 329 Dwight st., Holyoke.
Geckler, Burton E.,	335 St. James ave.,	Architect, 374 Main st.
Gibbons, James A.,	962 Worthington st.,	Treasurer, 54 Fort st.
Gibbs, Harry E.,	33 Continental st.,	Piano Dealer, 71 Main st.
Giblin, Eugene W.,	76 Cambridge st.,	Not employed.
Giggey, Charles E.,	22 Morris st.,	Engraver, Cor. Dwight and Worthington sts.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Gilbert, Adolph W.,	140 Oak st., I. O.,	General Manager, Pine st., I. O.
Gilbert, Charles E.,	55 Dawes st.,	Grocery Clerk, 160 Main st.
Gilbert, Clifford,	91 Marion st.,	Machinist, 837 State st.
Gilfoil, George T.,	693 Main st.,	Real Estate Dealer, 693 Main st.
Gill, James Milton,	150 Buckingham st.,	President, 44 Dwight st.
Gilman, George W.,	58 Burr st.,	Driver, 100 Albany st.
Gilmore, Dwight,	175 Maple st.,	Assistant Treasurer, 11 Elm st.
Gilmore, Thomas,	5 Dale st.,	Laborer, about the City.
Giroux, Eugene,	263 Mill st.,	Blacksmith, 265 Mill st.
Gladfelter, Harry,	25 Bancroft st.,	Cigar Maker, 16 Main st.
Gleason, John F.,	140 Patton st.,	Electrician, B. & A. R. R. Shops, West Springfield.
Glidden, Leon A.,	45 Claremont st.,	Plumber, 45 Claremont st.
Glover, William H.,	407 Allen st.,	Paper Hanger, 407 Orange st.
Goddard, Joseph D.,	25 Cedar st.,	Blacksmith, Allen st.
Goldthwaite, Edward S.,	65 State st.,	Insurance Agent, 374 Main st.
Goodell, Newton H.,	46 Main st.,	Grocery Clerk, 74 Main st.
Goodrich, Leverett H.,	75 White st.,	Grocer, 75 White st.
Goodwin, Guy M.,	33 Edwards st.,	Superintendent, East Longmeadow.
Goodwin, Irving S.,	1090 State st.,	Carpenter and Builder, 1090 State st.
Gordon, Jacob A.,	19 Franklin st.,	Insurance Agent, 19 Franklin st.
Gould, Edwin F.,	24 Washington road,	Clerk, 225 Liberty st.
Graham, James,	88 Acushnet ave.,	Button Maker, Howard st.
Graves, Arthur W.,	21 Sorrento st.,	Builder, 21 Sorrento st.
Graves, Howard S.,	35 Clarendon st.,	Real Estate Dealer, 293 Bridge st.
Graves, Ralph S.,	50 Ingersoll Grove,	Retired.
Greany, James E. R.,	358 Armory st.,	Clerk, 229 Main st.
Greany, Peter,	54 Everett st.,	Hack Driver, 54 Everett st.
Green, Clarence H.,	83 Elliot st.,	Storekeeper, 128 Spring st.
Greenan, Vincent A.,	136 Johnson st.,	Wire Weaver, Heywood st.
Greenaway, James,	171 Oak st., I. O.,	Foreman, Pine st., I. O.
Greene, John A.,	31 Worcester st., I. O.,	Foreman, Worcester st., I. O.
Greenough, Charles H.,	66 Pynchon st.,	Polisher, Spaulding's, Chicopee.
Gregg, William T.,	30 Hawley st.,	Custodian, 500 Main st.
Gregory, Percival,	47 Jasper st.,	Optician, 23 Harrison ave.
Griffin, Barte J.,	86 Magnolia ter.,	Proprietor, 29 Worthington st.
Griffin, Dennis F.,	230 Fort Pleasant ave.,	Foreman, Fiske ave., Brightwood.
Griffin, Eugene L.,	434 North Main st.,	Superintendent, Wason ave.
Griffin, James,	62 Washburn st.,	Conductor, B. & M. R. R.
Griffin, James J.,	103 Oak st., I. O.,	News Dealer, 39 Oak st., I. O.
Griffin, John E.,	82 Pearl st.,	Transferman, Union Station.
Griffin, Lawrence P.,	119 Massasoit st.,	Produce Dealer, 153 Plainfield st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Griffin, Richard J.,	177 Union st.,	Broker, c. Main st. & Harrison ave.
Griffin, Thomas D.,	60 Hall st.,	Printer, 17 Worthington st.
Griffith, James A.,	583 State st.,	Musician, 583 State st.
Grinovetz, Morris,	77 Morgan st.,	Machinist, 837 State st.
Grover, James,	41 Avon place,	Special Insurance Agent, cor. Main st. & Harrison ave.
Gruttermeyer, William F.,	170 Massasoit st.,	Merchant, 283 North Main st.
Gunderman, George,	82 Pearl st.,	Proprietor, 208 Worthington st.
Gustafson, Carl Oscar,	23 Highland st.,	Moulder, Unemployed.
Guterman, Hans W.,	36 Amherst st.,	Decorator, 419 Main st.
Guy, Charles H.,	77 Everett st.,	Cigar Manufacturer, 77 Everett st.
Guy, Frank J.,	366 Walnut st.,	Cigar Maker, 77 Everett st.
Gwinnell, Henry,	223 Hancock st.,	Machinist, cor. Heywood st. & Warwick st.
Haas, George A.,	319 State st.,	Reporter, 381 Main st.
Hagerty, Daniel,	122 Franklin st.,	Mason, Unemployed.
Haggerty, George,	122 Franklin st.,	Mason, Unemployed.
Haggerty, Michael J.,	684 Liberty st.,	Brick Layer, 126 Chestnut st.
Hahn, Edward A.,	39 Clifton ave.,	Painter, 130 Birnie ave.
Hale, C. Wesley,	400 St. James ave.,	Dentist, 400 St. James ave.
Hale, David,	36 Magnolia ter.,	Iron Founder, Oak st. Station, I. O.
Hall, Burton S.,	3 Pearl st. place,	Optician, Northampton.
Hall, Donald W.,	123 Cedar st.,	Assistant Superintendent, 349-359 Main st.
Hall, Fred J.,	24 Besse place,	Salesman, 168 Bridge st.
Hall, George A.,	24 John st.,	Production Manager, 837 State st.
Hall, H. Arnold,	133 Cedar st.,	Clerk, 133 Cedar st.
Hall, Walter E.,	350 Dickinson st.,	Superintendent, 58 Harrison ave.
Hall, William A.,	15 Hawley st.,	Shipping Clerk, cor. Dwight & Taylor sts.
Hallett, William P.,	27 Pearl st. place,	Bookkeeper, 422 Main st.
Halloran, Matthew J.,	47 Congress st.,	Manager, 184 Main st.
Halloran, Patrick,	42 Alfred st.,	Tailor, 257 Main st.
Hamel, Arthur J.,	378 Dickinson st.,	Restaurant Keeper, 198 Main st.
Hamel, William S.,	46 Rush ave.,	Stenographer, 500 Main st.
Hamilton, Charles R.,	60 Scott st.,	Oculist, 331 Main st.
Hamilton, Stephen,	30 Allen st.,	Machinist, Page blvd.
Hancock, Charles J.,	18 Washington road,	Clerk, Municipal Building.
Hancock, Fred O.,	566 Sumner ave.,	Foreman, Colton st.
Handy, Herman H.,	62 Firglade ave.,	Manufacturer, Berkshire st.
Handyside, William A.,	376 Orange st.,	Conductor, 5 No. Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Hanifin, William J.,	87 Elliot st.,	Day Watchman, 407 Main st.
Hanley, Thomas J.,	133 Franklin st.,	Barber, 349 Worthington st.
Hannon, Fred F.,	50 Commonwealth ave.,	Salesman, 30 Taylor st.
Hannon, John,	36 Bradford st.,	Landlord, 36 Bradford st.
Hanson, Victor A.,	407 St. James ave.,	Printer, 56 Harrison ave.
Harman, Charles B.,	17 Magnolia ter.,	Die Sinker, 256-268 Main st.
Harrington, Arthur J.,	173 Marion st.,	Manager, 778½ State st.
Harrington, Daniel J.,	140 Euclid ave.,	Plumber, 293 Bridge st.
Harrington, Dennis W.,	450 Chestnut st.,	Clerk, 53 Wilbraham road.
Harrington, James W.,	15 Margaret st.,	Mail Clerk, 17 Worthington st.
Harrington, John F.,	317 St. James ave.,	Storekeeper, 289 Main st.
Harrington, John J.,	420 Main st.,	Bartender, 418-428 Main st.
Harrington, Thomas F.,	367 St. James ave.,	Storekeeper, 289 Main st.
Harrington, William J.,	35 Ledyard st.,	Buttermaker, 132 Cass st.
Harris, M. Victor,	47 Tenth st.,	Printer, 292 Main st.
Hart, Frank M.,	367 White st.,	Plumber, 171 Spring st.
Hart, William C.,	65 Firglade ave.,	Photographer, 65 Firglade ave.
Hart, William E.,	94 State st.,	Clerk, 74 Main st.
Hartenstein, Louis C.,	224 Main st.,	Hotel Keeper, 224 Main st.
Hartshorn, Derick S.,	17 Wellesley st.,	Engineer, foot of Church st., W. Spfd.
Hartwell, Frank W.,	37 Eagle st.,	Draughtsman, Brightwood.
Hartwell, Oscar D.,	1264 North st.,	Manufacturer, 294 Plainfield st.
Harvey, Arthur C.,	36 Brown st.,	Insurance Agent, 36 Brown st.
Harvey, George W.,	267 Hancock st.,	Foreman, Oak st., I. O.
Harvey, William E.,	366 Hancock st.,	Merchant, 814 State st.
Harwood, Leon M.,	958 State st.,	Manufacturer, 958 State st.
Hastings, Herbert C.,	26 Mapledell st.,	Draughtsman, Brightwood.
Hatch, Homer L.,	N. S. Allen st.,	Farmer, N. S. Allen st.
Havens, Allison,	121 Garfield st.,	Salesman, 254 Worthington st.
Hawkins, Royal D.,	304 Union st.,	Window Trimmer, 421 Main st.
Hawley, Frank R.,	41 Chase ave.,	Real Estate Dealer, 381 Main st.
Hawley, Walter S.,	42 Chase ave.,	Proprietor, 115 Worthington st.
Hayes, Irving C.,	14 Dresden st.,	Bookkeeper, 241 Main st.
Hayes, James J.,	356 Franklin st.,	Solicitor, 73 State st.
Hayhurst, Cyril W.,	659 State st.,	Draftsman, 73 State st.
Hayman, Maurice,	264 Franklin st.,	Insurance Agent, 500 Main st.
Haynes, J. Everett,	39 Leyfred ter.,	Toolmaker, 39 Leyfred ter.
Haynes, Lincoln C.,	32 Fairfield st.,	Merchant, 376 Main st.
Haynes, Philip L.,	45 Mattoon st.,	Clerk, N. Y., N. H. & H. R. R., Water st.
Healey, Cornelius,	336 Chestnut st.,	Wine Clerk, 333 Worthington st.
Healey, Jeremiah,	944 Liberty st.,	Salesman, Gas Co., Water st.
Healy, Henry,	287 Chestnut st.,	Cigar Maker, 32-34 Hampden st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Heenehan, Michael J.,	27 Washburn st.,	Draughtsman, Oak st., Chicopee Falls.
Heffernan, Joseph F.,	47 Hall st.,	Inspector, Oak st., Chicopee Falls.
Hennessey, John B.,	53 Bradford st.,	Compositor, 292 Main st.
Hennessey, Joseph W.,	117 Massasoit st.,	Motorman, 5 No. Main st.
Hennessey, Martin J.,	65 Prospect st.,	Conductor, 5 No. Main st.
Hennessey, Richard A.,	65 Alden st.,	Bricklayer, about the City.
Hennessey, William R.,	65 Alden st.,	Bricklayer, about the City.
Herchovitz, Louis,	136 Franklin st.,	Clerk, 445 State st.
Herrick, Lester E.,	136 Yale st.,	Salesman, 38 Birnie ave.
Hersey, Ralph D.,	542 Union st.,	Insurance Agent, 35-37 Worthington st.
Hickey, Thomas,	88 Chestnut st., I. O.,	Watchman, Front st., I. O.
Higgins, Nelson F.,	239 Pine st.,	Florist, 150 State st.
Hillman, Frederick J.,	102 Dartmouth st.,	President, 31 Elm st.
Hines, Oliver E.,	194 Oak st., I. O.,	Not employed.
Hiney, John J.,	27 Chester st.,	Conductor, 5 No. Main st.
Hinkley, Charles W.,	78 Boylston st.,	Expressman, 9½ Cypress st.
Hisgen, Thomas L.,	611 Belmont ave.,	Merchant, New Bridge st., W. Spfd.
Hitchcock, Charles B.,	321 Long Hill st.,	Buyer, 392 Main st.
Hitchcock, Herbert B.,	28 Boylston st.,	Storekeeper, B. & M. R. R. Co.
Hitchen, Joseph F.,	114 Rowland ave.,	Bookkeeper, 32 Liberty st.
Hodges, Walter F.,	61 Worcester st., I. O.,	Manager, Hodges Fibre Carpet Co., I. O.
Hoffman, Peter C.,	41 Vernon st.,	Corset Cutter, 405 Dwight st.
Hogan, James J.,	670 Carew st.,	Carpenter, 1115 Liberty st.
Holbrook, Charles H.,	43 Albemarle st.,	Linotyper, 292 Main st.
Holbrook, George M.,	140 Maple st.,	Manager, 9 Main st., Holyoke.
Holland, Arthur J.,	716 Worthington st.,	Clerk, 457 State st.
Holland, Herbert A.,	362 Hancock st.,	Clerk, 195 State st.
Hollister, Richard C.,	238 Pine st.,	Draughtsman, Oak st., Chicopee Falls.
Holman, Charles W.,	71½ Adams st.,	Piano Polisher, 71½ Adams st.
Hooker, Albert A.,	28 Biltmore st.,	Clerk, 213 Worthington st.
Horenstein, Israel,	95 Grenada ter.,	Barber, 110 West State st.
Horwill, William H.,	69 Dale st.,	Laborer, B. & M. R. R. Co.
Hourihan, James C.,	31 Cherryvale ave.,	Advertising Manager, Market st., Hartford, Ct.
Hosley, Nelson R.,	12 Brookline ave.,	Insurance Clerk, 195 State st.
Hosmer, William W., Jr.,	57 Warner st.,	Commercial Traveler, 55 High st., Boston.
Hovis, Orison E.,	17 Kenwood ter.,	Clerk, 500 Main st.
Howard, Fred L.,	22 Trillium st.,	Contractor, 22 Trillium st.
Howard, Louie W.,	888 Allen st.,	Farmer.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Howard, Tyler J.,	43 Wellington st.,	Insurance Agent, 317 Main st.
Howard, Walter E.,	26 Besse place,	Cabinet Maker, 79 Harrison ave.
Howes, Harry W.,	66 Auburn st.,	Job Compositor, 53 Hillman st.
Hoyle, Herbert R.,	55 No. Main st.,	Loom Fixer, Hodges Fibre Carpet Co., I. O.
Hubbard, Charles G.,	98 Bay st.,	Bank Teller, 321-323 Main st.
Hubbard, Frank H.,	34 Salem st.,	Stock Keeper, 17 Worthington st.
Huck, Carl Henry,	685 State st.,	Trucking, 39 Hampden st.
Huettner, Christian J.,	141 Union st.,	Grocer, 595(A) Main st.
Hughes, Robert W.,	63 Berkshire st., I. O.,	Shipping Clerk, Worcester st., I. O.
Humberston, Harry,	402 Sumner ave.,	Bookkeeper, 402 Sumner ave.
Humphrey, Benjamin F.,	131 Princeton st.,	Salesman, 10 Broadway.
Hunter, Charles J.,	82 Bridge st.,	Harnessmaker, 63 Market st.
Huntting, Henry R.,	22 Temple st.,	Bookseller, 21 Besse place,
Hutchings, Eugene M.,	270 Pearl st.,	Grocer Clerk, 138-144 Main st.
Hutchinson, Frank R.,	49 Princeton st.,	Publisher, 16 Worthington st.
Hutchinson, Thomas C.,	67 Girard ave.,	Insurance Agent, 374 Main st.
Hynes, Edward V.,	57 Cass st.,	Conductor, 5 No. Main st.
Ireland, Charles,	476 Main st.,	Janitor, 476 Main st.
Isherwood, William A.,	138 Marion st.,	Plumber, 26 Willow st.
Jackson, William C.,	51 Monroe st.,	Clerk, 500 Main st.
James, Benjamin F.,	661 White st.,	Florist, 661 White st.
Janes, Albert P.,	24 Spruceland ave.,	Manager, Holyoke.
Joselyn, Charles,	59 Oak Grove ave.,	Order Clerk, 37 Harrison ave.
Johnson, Allison F.,	151 Johnson st.,	Salesman, 45 Hampden st.
Johnson, August,	148 Eastern ave.,	Carpenter, 499 Main st.
Johnson, Charles B.,	29 Main st.,	Machinist, Unemployed.
Johnson, Frank P.,	W S Connecticut ave.,	Agent, B. & M. R. R., Chicopee.
Johnson, Peter C.,	37 Elmwood st.,	Superintendent, 837 State st.
Johnson, Walter E.,	224 State st.,	Insurance Lister, 374 Main st.
Jones, Frank C.,	341 St. James ave.,	Clerk, 245 Chestnut st.
Jones, Wilbur F.,	30 Montrose st.,	Clerk, 776 State st.
Jordan, Charles H.,	297 Bay st.,	Insurance Agent, 293 Bridge st.
Kalman, Bernhard,	378 Franklin st.,	Cigar Packer, 309 Main st.
Kane, John,	22 Crestwood st.,	Retired.
Kaplinger, Charles H.,	832 Chestnut st.,	Manager, 275 Main st.
Kaplinger, Louis E.,	32 Greenwich st.,	Printer, 275 Main st.
Karcher, Charles W.,	64 Willard ave.,	Car Accountant, B. & A. R. R.
Kattler, Frederick,	398 Sumner ave.,	Real Estate Dealer, 381 Main st.
Katz, Louis,	207 Forest Park ave.,	Hotel Proprietor, 526 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Kavanagh, Joseph P.,	108 Hampden st., I. O.,	Manager, 319 Dwight st., Holyoke.
Kavanagh, William,	52 Howard st.,	Furniture Dealer, 443 State st.
Keefe, Daniel F.,	15 Merrick ave.,	Druggist, 180 Hancock st.
Kehoe, John,	57 Greenwich st.,	Gardener, 445 Plainfield st.
Keith, William J.,	24 Grove st.,	Meat Cutter, 283 North Main st.
Kelleher, John T.,	51 Cleveland st.,	Polisher, Page boulevard.
Keller, George,	45 Holyoke st.,	Cigar Manufacturer, 222 Main st.
Kelly, Patrick J.,	99 Pendleton ave.,	Motorman, 5 North Main st.
Kendrick, Charles E.,	67 Cambridge st.,	Clerk, 345 Bay st.
Kennedy, George H.,	19 East Court st.,	Mechanic, Page boulevard.
Kennedy, John A.,	39 Brookline ave.,	Insurance Agent, 317 Main st.
Kennedy, Newton L.,	28 Morris st.,	Varnisher, 225 Liberty st.
Kennedy, Thomas W.,	361 Oakland st.,	Clerk, 500 Main st.
Kennefick, Richard,	65 Essex st.,	Tool Maker, 983 Main st.
Kennelly, John W.,	59 Ashley st.,	Plumbing Contractor, 59 Ashley st.
Kenner, Frederick J.,	28 Auburn st.,	Motorman, 5 North Main st.
Kenny, Thomas,	103 Grover st.,	Foreman, Gas Co., Water st.
Kenyon, Silas F.,	59 Berkshire st., I. O.,	Not employed.
Kenyon, Thomas A.,	118 Cornell st.,	Carpet Cleaner, 40 Taylor st.
Kernan, William H.,	60 Andrew st.,	Planer, 160 Wilbraham ave.
Kervick, Andrew,	58 Keith st.,	Farmer, Island Pond road.
Kimball, Charles P.,	112 College st.,	Photo Engraver, 377 Dwight st.
Kimball, George W.,	120 Spring st.,	Superintendent, 11 Water st.
King, Edwin P.,	E. S. Parker st., I. O.,	Farmer.
King, H. Frederic,	481 Bay st.,	Advertising Manager, 292 Main st.
King, Harry B.,	16 Grove st.,	Foreman, Fred T. Ley Co.
King, Raymond H.,	26 Maynard st.,	Machinist, Stockbridge st.
King, William C.,	61 Thompson st.,	Book Publisher, 29 Worthington st.
Kingsbury, Charles B.,	117 Tyler st.,	Machinist, 837 State st.
Kingston, John J.,	192 Franklin st.,	Clerk, 357 Main st.
Kingston, William J.,	21 Florence st.,	Steam Fitter, 23 Bond st.
Kinsman, Louis G. H.,	38 Greenbrier st.,	Mason, 38 Greenbrier st.
Kipp, Walter C.,	134 Carew st.,	Foreman, B. & A. R. R. Co.
Kitson, Harry G.,	9 Irvington ave.,	Artist, 77 Worthington st.
Kneip, Frank, Jr.,	116 Andrew st.,	Salesman, 216 Main st.
Knight, Edwin Leroy,	71½ Adams st.,	Grocer, 610 Main st.
Knowlton, Fred M.,	21 Merwin st.,	Architect, 21 Merwin st.
Kuhn, Ernest H.,	55 Harriet st.,	Printer, 149 Wason ave.
Kunle, Joseph E.,	366 Sumner ave.,	Foreman, 21 Cypress st.
La Boeuf, Edward E.,	720 White st.,	Steam Fitter, 140 Worthington st.
Ladd, Charles E.,	23 Trinity ter.,	Florist, Forest Park.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION
Ladd, Charles M.,	31 Trinity ter.,	Superintendent, Forest Park.
La Francis, Walter J.,	E. S. Barrison st.,	Carpenter, Barrison st.
Laird, William H.,	295 State st.,	Floor Walker, 349-359 Main st.
Lamier, Albert B.,	160 Hickory st.,	Superintendent, 195 Alden st.
Lamont, Emery N.,	346 Chestnut st.,	Tool Maker, 65 Main st., Chicopee Falls.
Lamott, Asa W.,	79 Walnut st.,	Machinist, Page Boulevard.
Lampson, George S.,	124 Buckingham st.,	Real Estate Dealer, 310 Main st.
Lamson, Albert J.,	281 Allen st.,	Clerk, 227 Plainfield st.
Lane, Edward G.,	52 Pearl st.,	Automobile Salesman, 121 Bridge st.
Lane, Fred A.,	63 North Main st.,	Clerk, 160 Main st.
Lane, John A.,	12 Crown st.,	Machinist, Stockbridge st.
Lane, Robert E.,	55 Nelson ave.,	Salesman, 26 Worthington st.
Lane, William H.,	65 Spring st.,	Clerk, B. & M. R. R., Fulton st.
Lang, George D.,	5 Oak st.,	Insurance Agent, 500 Main st.
Lange, Frank J.,	3 Salem st.,	Cafe Manager, 253 Bridge st.
Larcher, William R.,	127 Greenwood st.,	Machinist, 21 Cypress st.
Lard, Francis A.,	289 Belmont ave.,	Jewelry, 289 Belmont ave.
Larkin, John W.,	37 Douglas st.,	Inspector, Stockbridge st.
Larson, Louis,	500 Central st.,	Car Inspector, N. Y., N. H. & H. R. R.
Lasker, Morris,	18 Congress st.,	Commission Merchant, 2 Allen st., New York.
Lathrop, Frederick W.,	188 Sumner ave.,	Real Estate Dealer, 188 Sumner ave.
Lathrop, George B.,	70 Main st.,	Foreman, B. & A. R. R. Shops.
La Vally, Peter,	3 Pynchon st.,	Barber, 100 Bridge st.
Law, John D.,	2 Cornell st.,	Storekeeper, 260 Main st.
Lawler, Daniel T.,	11 Austin st.,	Salesman, 29 Worthington st.
Lawler, John,	691 State st.,	Merchant, 29 Worthington st.
Lawrence, Albert P.,	90 Oak st.,	Superintendent, 499 Main st.
Lazelle, Harry T.,	84 Oak Grove ave.,	Merchant, 1083-1085 State st.
Leab, William,	28 Pasco road, I. O.,	Foreman, Worcester st., I. O.
Leab, William H.,	172 Oak st., I. O.,	Pattern Maker, 232 Dwight st.
Leach, Charles D.,	1340 Berkshire ave.,	Engineer, Bircham Bend road.
Leach, Zenas F.,	30 Besse place,	Bookkeeper, 109 Taylor st.
Leary, Eugene C.,	30 Pearl st.,	Jeweler, 162 State st.
Ledoux, Charles Edward,	25 Ozark st.,	Insurance Agent, 318 Main st.
Lee, Philip W.,	110 Clarendon st.,	Insurance Agent, 14 Fort st.
Lee, William Henry,	105 Princeton st.,	Real Estate Dealer, 105 Princeton st.
Leeds, Alfred,	27 Ridgewood ter.,	Vice-president, 9 Main st., Holyoke.
Le Febre, Joseph,	33 Linden st.,	Shoe Dealer, 275 Worthington st.
Legein, Armand J.,	50 Howard st.,	Manufacturer, 50 Howard st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Leighton, Percy A.,	292 Orange st.,	Druggist, King, White and Allen sts.
Leitch, William M.,	267 Boston road,	Bookkeeper, 23 Bond st.
Lemley, Frank H.,	69 Clarendon st.,	Traveling Salesman, 69 Clarendon st.
Leonard, Edwin F.,	348 Carew st.,	Druggist, 72 Main st.
Lerche, Albert E.,	210 St. James ave.,	Druggist, 325 Main st.
Lerche, Rudolph W.,	263 Hancock st.,	Clerk, 822 State st.
Lester, John J.,	843 Chestnut st.,	Real Estate Dealer, 843 Chestnut st.
Letellier, Alexander D.,	70 Grover st.,	Teamster, 34-36 Lyman st.
Lewis, Arthur B.,	233 Forest Park ave.,	Merchant, 461 Main st.
Lewis, Bert A.,	22 Belgrade place,	Foreman, 118 Fiske ave.
Lewis, Lester S.,	659 State st.,	Clerk, 499 Main st.
Ley, Frederick T.,	S. S. Buena Vista Plaza,	Contractor, 499 Main st.
Light, Ellsworth J.,	45 Reed st.,	Insurance Agent, 476 Main st.
Lincoln, William A.,	92 Maple st.,	President, 500 Main st.
Lindsay, William,	1108 State st.,	Cabinet Maker, 850 State st.
Linnehan, Jeremiah J.,	34 Ashley st.,	Meat Dealer, 34 Ashley st.
Litchard, Martin K.,	15 Temple st.,	Manager, 31 Harrison ave.
Little, Edward B.,	329 Eastern ave.,	Machinist, Chicopee Falls.
Little, Harry L.,	342 Wilbraham road,	Bookkeeper, Worcester st., I. O.
Livingston, Fred W.,	42 Alden st.,	Machinist, Stockbridge st.
Livingston, James O.,	136 College st.,	Carpenter, 136 College st.
Lloyd, Harry R.,	25 Vassar st.,	Assistant News Manager, 381 Main st.
Lloyd, Henry W.,	28 Buckingham st.,	Storekeeper, 19 Worthington st.
Lloyd, Thomas,	306 St. James ave.,	Storekeeper, 11 Worthington st.
Lockwood, Alfred L.,	88 Bay st.,	Locksmith, Cor. Harrison ave. and Dwight st.
Lockwood, Brower E.,	23 Pearl st. place,	Manager, 340 Bridge st.
Long, Louis,	161 Main st.,	Laundryman, 333 Belmont ave.
Longeway, Charles A.,	31 Leyfred ter.,	Foreman, 40 Liberty st.
Loose, Theron L.,	16 Albemarle st.,	Superintendent, 837 State st.
Loveland, J. Marshall,	55 Dawes st.,	Butter & Eggs Dealer, 55 Dawes st.
Lovett, George E.,	83 Beaumont st.,	Shoemaker, 38 Cypress st.
Lovett, Richard F.,	14 Whittier ave.,	Conductor, 5 No. Main st.
Lucas, George A.,	26 John st.,	Bookkeeper, Oak st., Chicopee Falls.
Luce, Frank C.,	29 Pasco road, I. O.,	Foreman, Pine st., I. O.
Ludden, Richard E.,	20 Harriet st.,	Plumber, Exchange st., Chicopee.
Ludden, William P.,	168 No. Main st.,	Proprietor, 204 High st., Holyoke.
Ludwig, Frank P.,	70 Amherst st.,	Retired.
Lutz, Elmer E.,	37 Sargeant st.,	Lithographer, 67 Taylor st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Lyman, Allen N.,	53 Thompson st.,	Toolmaker, Birnie ave.
Lyman, Arthur L.,	81 Garfield st.,	Insurance Agent, 25 Harrison ave.
Lynch, Dennis J.,	87 Prospect st.,	Carpenter, 655 Worthington st.
Lynch, James,	180 Center st., I. O.,	Tea Peddler, 180 Center st., I. O.
Lynch, James D.,	32 Woodside ter.,	Manager, 216 Worthington st.
Lynch, James H.,	55 Knox st.,	Bookkeeper, 147 Dwight st.
Lynch, John J.,	128 Orchard st.,	Jeweler, 331 Main st.
Lynch, Patrick J.,	45 Worcester st., I. O.,	Master Mechanic, Worcester st., I. O.
Lyons, James,	562 Armory st.,	Teamster, Springfield Breweries.
Lyons, John F.,	17 Alden st.,	Manager, 49 Taylor st.
Lyons, Patrick J.,	108 Hancock st.,	Butcher, 106 Hancock st.
MacCarter, Allison H.,	20 Cortland st.,	Salesman, 55 Lyman st.
MacNally, John R.,	471 Belmont ave.,	Inspector, 283 Worthington st.
Madden, Michael J.,	276 Armory st.,	Lithographer, Warwick st.
Magaziner, Jacob,	464 Chestnut st.,	Merchant, 72 Ferry st.
Maguire, William E.,	639 Chestnut st.,	Dentist, 340 Bridge st.
Mahan, John P.,	63 Hollywood st.,	Traveling Salesman, 67 Lyman st.
Main, Frederick W.,	19 Berkeley st.,	Salesman, Worthy Paper Co., Mittineague.
Mallette, Edward E.,	177 White st.,	Clerk, 177 White st.
Mallory, Frederick D.,	94 Oak st.,	Paper Cutter, 58 Harrison ave.
Malone, Patrick F.,	94 Essex st.,	Electrician, 194 Worthington st.
Maloney, Charles H.,	42 Thompson st.,	Foreman, 146 State st.
Maloney, James T.,	16 Vinton st.,	Teamster, 54 Fort st.
Maloney, Joseph P.,	69 Belmont ave.,	Buyer, 392 Main st.
Maloney, Timothy F.,	687 Carew st.,	Cigar Maker, 258 Main st.
Mandell, George,	682 Quincy st.,	Grocer, 61 Orleans st.
Mandeville, George,	5 Westford circle,	Real Estate Dealer, 5 Westford circle.
Manning, Frederick A.,	N. S. Allen st.,	Salesman, 37 Harrison ave.
Manning, John P.,	10 Wendell ave.,	Clerk, N. Y., N. H. & H. Freight Office.
Manning, Thomas,	16 Alderman st.,	Agent, 500 Main st.
Manser, Elmer E.,	285 Allen st.,	Contractor, 285 Allen st.
Mansfield, Edward H.,	15 Temple st.,	Treasurer, 32 Liberty st.
Mansfield, George E., Jr.,	15 Temple st.,	Mercantile Collector, 15 Temple st.
Mansfield, Patrick F.,	609 White st.,	Steam Fitter, 732 White st.
Marden, J. William,	410 Liberty st.,	Foreman, Warwick st.
Marden, Walter J.,	184 Bloomfield st.,	Clerk, 181 Lyman st.
Marsh, Edmund P.,	21 Greenleaf st.,	Insurance Agent, 317 Main st.
Marshall, John E.,	617½ Main st.,	Clerk, 390-396 Main st.
Marshman, Arthur R.,	135 Spring st.,	Merchant, 282 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Mason, Frank B.,	11 Parkwood st.,	President, 356 Main st.
Maxfield, Samuel W.,	19 Salem st.,	Agent, 38 Harrison ave.
Mayer, Carl August,	47 Merwin st.,	Superintendent, Bosch Magneto Co., No. Main st.
McAuley, Frank A.,	38 Plymouth st.,	Amateur Winder, 5 No. Main st.
McBride, Daniel,	506 Liberty st.,	Hackman, 506 Liberty st.
McCaffrey, James M.,	38 Bradford st.,	Proprietor, 6 Main st.
McCarthy, C. Edward,	178 Lebanon st.,	Machinist, Chicopee Falls.
McCarthy, Charles,	67 Linden st.,	Switch Tender, 5 No. Main st.
McCarthy, William.	178 Carew st.,	Cigar Maker, 32-34 Hampden st.
McClean, Frederick C.,	177 Chestnut st.,	Plumbing Contractor, 151 State st.
McColgan, Daniel J.,	248 Pearl st.,	Manager, 162 Bridge st.
McCormick, John F.,	1141 North st.,	Slater, 1141 North st.
McCulloch, Henry B.,	38 Clifton ave.,	General Utility Man, Page blvd.
McDonald, Chester A.,	130 Myrtle st., I. O.,	Toolmaker, 837 State st.
McDonald, Robert J.,	69 Patton st.,	Manager, 414 Main st.
McDonough, John,	55 Calhoun st.,	Shipping Clerk, 140 Wilbraham ave.
McGillycuddy, Timothy J.,	100 Cedar st.,	Mason & Contractor, 100 Cedar st.
McGrath, James F.,	14 Massasoit place,	Assembler, Bosch Magneto Co., No. Main st.
McGrath, John E.,	176 Abbe ave.,	Not employed.
McIntire, Arthur H.,	13 Beech st.,	Watchman, Forest Park.
McIntyre, Owen A.,	33 Cherryvale ave.,	Broker, 318 Main st.
McKeon, James J.,	12 Monroe st.,	Clerk, Oak st., Chicopee Falls.
McKeown, Thomas R.,	34 Allen ave.,	Treasurer, 34 Allen ave.
McMath, Carroll B.,	32 Eaton ave.,	Secretary, 377 Dwight st.
McNally, Bernard,	63 No. Main st.,	Manager, 287 Main st.
McNulty, Michael H.,	328 No. Main st.,	Not employed.
McNulty, William J.,	426 Chestnut st.,	Paint Mixer, 161 Armory st.
McPartlin, Michael,	3 Sorrento st.,	Grocer, 3 Sorrento st.
McQuade, Andrew,	491 Hancock st.,	Teaming & Trucking, 491 Hancock st.
McVeigh, Joseph C.,	56 Dartmouth st.,	Grain Dealer, 197 Lyman st.
Meacham, Lewis E.,	21 Grenada ter.,	Insurance Agent, 318 Main st.
Meehan, Frank T.,	42 Ringgold st.,	Foreman, Municipal Building.
Meehan, Timothy J.,	14 Walden st.,	Foreman, Forest Park Dept.
Meehan, William H.,	129 Essex st.,	Cigar Manufacturer, 127½ Essex st.
Megett, Leon J.,	32 Claremont st.,	Machinist, 837 State st.
Meldrum, William T.,	674 Main st.,	Property-man, 11 Elm st.
Melladew, George,	17 Clifford st.,	Machinist, Winter st.
Merriam, Thomas D.,	248 Pearl st.,	Clerk, 162½ Chestnut st.
Merriam, Wilder D.,	321 Orange st.,	Clerk, Atlantic & Pacific Tea Co.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Merrick, Edward P.,	35 Lenox st.,	Machinist, East Springfield.
Merritt, Arthur C.,	78 Firglade ave.,	Newspaperman, 205 Worthington st.
Messner, Andrew C. G.,	Fenwick ave.,	Foreman, 140 Wilbraham ave.
Milburn, Lee,	494 Belmont ave.,	Contractor, 359 Main st.
Millea, Francis J.,	329 Dickinson st.,	Plater, 47 Taylor st.
Millea, Thomas D.,	36 Keith st.,	Retired.
Miller, David K.,	34 Alfred st.,	Machinist, Bosch Magneto Co., No. Main st.
Miller, George A.,	26 Greene st.,	Cigar Maker, Chicopee Falls.
Miller, George D.,	242 College st.,	Electrotyper, 29 Broadway.
Miner, Ellis W., Jr.,	407 Sumner ave.,	Not employed.
Miner, George H.,	619 Sumner ave.,	Merchant, 308 Main st.
Mirkin, Samuel,	108 Greenwood st.,	Salesman, 719 North st.
Missett, Victor W.,	186 Allen st.,	Plumber, 77 Dwight st.
Mitchell, Charles N.,	12 Hall st.,	Foreman, 236 Main st.
Mitchell, Patrick J.,	145 Bond st.,	Grain Dealer, 232 Chestnut st.
Moody, Roscoe R.,	77 Dartmouth st.,	Broker, 25 Harrison ave.
Moore, Asher T.,	31 Central st.,	Salesman, 692 Main st.
Moore, Burton H.,	11 Marble st.,	Printer, 29 Worthington st.
Moore, Harry A.,	S. S. Boston road,	Ice Dealer, Boston road opposite Pasco road.
Moore, Newton C.,	4 Hampden St., I. O.,	Machinist, Colton st.
Moore, Prentice B.,	N. S. Bircham st.,	Real Estate Dealer, 318 Main st.
Moreau, Charles L.,	22 Franklin st.,	Tinsmith & Plumber, B. & A. R. R. Shops.
Morgan, Ernest,	90 Westminster st.,	Purchasing Agent, foot Depot st., Chicopee.
Morgan, John H.,	72 Tenth st.,	Horseshoer, 163 Lyman st.
Moriarty, Daniel,	54 Murray Hill ave.,	Yard Master, B. & A. R. R.
Moriarty, James Joseph,	124 Everett st.,	Horseshoer, 18 Liberty st.
Morrill, Fred A.,	55 State st.,	Machinist, Page blvd.
Morris, Thomas J.,	584 State st.,	Steam Fitter, 32 Taylor st.
Morrison, Robert E.,	343 Hancock st.,	Printer, 33 Lyman st.
Morse, Frank R.,	31 Salem st.,	Merchant, 376 Main st.
Morse, John M.,	30 Besse place,	Florist, 484 Main st.
Mosher, Edward A.,	63 McKnight st.,	Blacksmith, Street Department.
Mossman, William M.,	26 Besse place,	Auditor, 500 Main st.
Moynihan, Jerry,	149 Patton st.,	Electrician, 232 Dwight st.
Mumford, Sidney B.,	910 Belmont ave.,	Traveling Salesman; House to house.
Munley, John Joseph,	86 Armory st.,	Lineman, 283 Worthington st.
Munn, Eugene H.,	42 Mapledell st.,	Editor, 292 Main st.
Murdough, Charles E.,	18 Vassar st.,	Storekeeper, 569 Worthington st.
Murphy, Daniel J.,	81 Alexander st.,	Telegraph Operator, 292 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Murphy, Dennis G.,	22 Plymouth st.,	Cigar Manufacturer, 16 Main st.
Murphy, Edward J.,	20 Byers st.,	Real Estate Dealer, 317 Main st.
Murphy, Edward J.,	546 Chestnut st.,	Liquor Dealer, 183 Main st.
Murphy, John F.,	28 Ringgold st.,	Machinist, foot of Church st., W. Spfd.
Murphy, John H.,	70 Grosvenor st.,	Plumber, 130 Birnie ave.
Murphy, Michael B.,	661 Carew st.,	Salesman, Jacob Dole Co., Buffalo, N. Y.
Murphy, Michael C.,	65 Central st.,	Clerk, S. S. Lyman st.
Murphy, Timothy,	67 Linden st.,	Harness Maker, Unemployed.
Murphy, Timothy J.,	18 Lowell st.,	Merchant, 18 Lowell st.
Murray, Henry P.,	37 Thomas st.,	Paper Cutter, 149 Wason ave.
Nash, Charles A.,	120 Oakland st.,	Milk Dealer, 120 Oakland st.
Nash, Michael,	384 Orange st.,	Laborer, for the City.
Nash, Robert F.,	15 Dewey st.,	Clerk, foot of Church st., W. Spfd.
Nason, Albert W.,	129 Dartmouth ter.,	Bond Broker, 129 Dartmouth ter.
Neidel, Alfred E.,	48 Fort Pleasant ave.,	Cigar Maker, 260 Main st.
Nelson, Charles Peter,	142 State st.,	Foreman, Forest Park.
Newell, Albert N.,	540 Dickinson st.,	Manager, Superior place.
Newell, Harry W.,	33 Greenleaf st.,	Mechanic, 33 Greenleaf st.
Newton, Charles,	25 Stebbins st.,	Electrician, 283 Worthington st.
Newton, Chester P.,	627 Chestnut st.,	Mechanical Engineer, 318 Main st.
Nihill, Joseph,	43 John st.,	Bill Poster, 41-45 Hampden st.
Niles, Orville W.,	43 Calhoun st.,	Traveling Salesman, 43 Calhoun st.
Nims, Herbert E.,	166 Princeton st.,	Chemist, Worcester st., I. O.
Nolan, Daniel J.,	40 Franklin st.,	Blacksmith, Bond st.
Nolan, John A.,	206 Center st., I. O.,	Clerk, Not employed.
Nolan, John L.,	109 Greenwood st.,	Painter, 109 Greenwood st.
Noonan, Charles H.,	220 Pendleton ave.,	Ice Dealer, Springfield.
Norris, Henry P.,	409 Union st.,	Assistant Treasurer, Cor. Cross and Willow sts.
Norton, William H.,	414 North Main st.,	Bookkeeper, 390-396 Main st.
Nott, Roy Hiram,	34 Albemarle st.,	Optician, 471 Main st.
Nutting, Frank,	159 Fort Pleasant ave.,	Music Teacher, 159 Ft. Pleasant ave.
Nye, Theodore H.,	11 Ingersoll Grove,	Merchant, 130 Lyman st.
Ober, Amos T.,	19 Thomas st.,	Foreman, 68 Birnie ave.
O'Brien, Henry M.,	54 Keith st.,	Foreman, Broad st.
O'Brien, Henry W.,	156 Florence st.,	Calendar Man, Willow st.
O'Brien, John J.,	490 Chestnut st.,	Teamster, 123 Carew st.
O'Brien, Patrick J.,	68 Holyoke st.,	Type Setter, 381 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
O'Brien, Patrick Joseph,	97 Tyler st.,	Marble Cutter, 535 Main st.
Ochsner, George,	17 Broad st.,	Baker, 804 Main st.
O'Connell, Charles F.,	122 Patton st.,	Shoe Clerk, 349-359 Main st.
O'Connell, Edward J.,	101 Everett st.,	Clerk, 19 Hampden st.
O'Connell, James F.,	100 Prospect st.,	Foreman, 983 Main st.
O'Connell, Morgan D.,	74 Everett st.,	Mason Contractor, 74 Everett st.
O'Connell, Patrick J.,	136 Congress st.,	Baseball Stitcher, 88 Birnie ave.
O'Connor, Edward E.,	22 Lowell st.,	Machinist, ft. Church st., West Springfield
O'Connor, William H.,	22 Lowell st.,	Not employed.
O'Donnell, Bartholomew J.,	250 Franklin st.,	Porter, 345 Main st.
O'Donnell, John,	50 James st.,	Stone Mason, Retired.
O'Hanlon, John F.,	1052 Sumner ave.,	Sales Agent, 410 Main st.
O'Hare, Patrick J.,	733 Carew st.,	Cutter, Warwick st.
Oldroyd, William L.,	154 Oak Grove ave.,	Clerk, 236 Main st.
Oliver, Merton J.,	30 Rochelle st.,	Tailor, 346 Main st.
O'Loughlin, John,	30 Winchester st.,	Machinist, 160 Wilbraham ave.
O'Malley, Charles A.,	42 Montmorenci st.,	Compositor, 292 Main st.
O'Malley, Patrick J.,	18 Grover st.,	Shipping Clerk, 220 Franklin st.
O'Neil, Matthew J.,	24 Clinton st.,	Machinist, 168 Birnie ave.
O'Neil, Patrick,	129 Hickory st.,	Plumber, 17 Market st.
O'Neill, Joseph,	37 Chase ave.,	Proprietor, Southport, Conn.
Onorato, Joseph,	235 Central st.,	Merchant, 72 Bridge st.
O'Regan, Charles S.,	80 Harrison ave.,	Machinist, Westinghouse Co., Chicopee Falls.
O'Reilly, Timothy W.,	20 Sargeant st.,	Conductor, 5 North Main st.
Ostiguy, Jean Peter,	98 Hall st.,	Foreman, 21 Harrison ave.
Otto, George R.,	141 St. James ave.,	Pressman, 29 Worthington st.
Otto, John,	38 Jefferson ave.,	Painter and Paper Hanger, 211 North Main st.
Ouimette, John,	17 Howard place,	Plumber, 240 Main st.
Owen, Charles,	39 Church st.,	Proprietor, 479 State st.
Paddock, Ezra S.,	77 Beaumont st.,	Conductor, 5 North Main st.
Paige, Charles S.,	17 Demond ave.,	Foreman, Wason ave.
Palmer, Charles A.,	45 Mattoon st.,	Foreman, 906 South Main st.
Pardee, Nelson C.,	45 Wilmont st.,	Electrician, 283 Worthington st.
Parker, Fordis C.,	173 Buckingham st.,	Insurance Agent, 179½ State st.
Parks, John,	19 Autumn st.,	Laborer, City of Springfield.
Parlett, Edwin J.,	152 Mulberry st.,	Architect, 25 Harrison ave.
Parsons, Frederick D.,	269 Union st.,	Insurance Agent, 414 Main st.
Parsons, George W.,	64 Spruceland ave.,	Salesman, Oak st., I. O.
Parsons, William E.,	122 Amherst st.,	Salesman, F. H. Brown, Greenfield.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION
Parsons, William R.,	122 Amherst st.,	Chauffeur, 29 Ingersoll Grove
Patrell, Oliver L.,	390 Hancock st.,	Baker, 398 Hancock st.
Patterson, Bradley H.,	19 Clifford st.,	Clerk, 372 Main st.
Payette, Levi,	133 Orleans st.,	Piano Mover, 168-170 State st.
Pearson, Henry,	578 North Main st.,	Consulting Engineer, Wason ave.
Pearson, Lars,	43 Pasco road, I. O.,	Machinist, Pine st., I. O.
Pease, Frank W.,	14 School st.,	Shipper, 349-359 Main st.
Peckham, Howard C.,	116 Hancock st.,	Toning Pictures, Warwick st.
Pelkey, George Albert,	363 North Main st.,	Real Estate Dealer, 363 North Main st.
Pelton, Joseph C.,	16 Thomas st.,	Foreman, 43 Exchange st., Chicopee.
Perkins, George S.,	21 Forest st.,	Draughtsman, 662 North Main st.
Perkins, Lyman H.,	53 Jefferson ave.,	Architect, 53 Jefferson ave.
Perry, Bertrand J.,	19 Bedford road,	Assistant Secretary, 500 Main st.
Peterson, Charles A.,	81 College st.,	Tinsmith, 837 State st.
Philbrick, Warren S.,	20 Bloomfield st.,	Conductor, 5 North Main st.
Pierce, James,	17 Lexington ave.,	Inspector, Broad st.
Pierrepont, Herbert M.,	31 Bancroft st.,	Tool Maker, 56 Boylston st.
Pike, George W.,	5 Madison ave.,	Broker, 292 Main st.
Pinney, Edward J.,	95 Dartmouth st.,	Builder and Contractor, 264 Main st.
Pirnie, George,	112 Magnolia ter.,	Commercial Traveler, 112 Magnolia ter.
Plumadore, George P.,	37 Palmer ave.,	Proprietor, 37 Lyman st.
Plummer, John D.,	Glen road,	Publisher, 292 Main st.
Polhemus, Henry I.,	1085 Worthington st.,	Agent, Besse place.
Pollard, Michael J.,	573 Liberty st.,	Tire Coverer, Oak st., Chicopee Falls.
Pond, George J.,	42½ Harrison ave.,	Tool Maker, 837 State st.
Poole, W. Frank,	88 Spring st.,	Shoe Clerk, 291 Bridge st.
Pooley, Adelbert,	40 Holyoke st.,	Printer, 40 Holyoke st.
Pooley, Arthur H.,	308 Eastern ave.,	Merchant, Cor. Hancock and King sts.
Porter, Alfred N.,	37 Bradford st.,	Paper Cutter, 338 Worthington st.
Porter, Burton W.,	86 Charles st.,	Assistant Foreman, 55 Stockbridge st.
Porter, Edward M.,	4 Ingraham ter.,	Clerk, 500 Main st.
Porter, Herman R.,	111 Thompson st.,	Tool Maker, Stockbridge st.
Powell, Benjamin,	109 Allen st.,	Eaves Trough Dealer, 109 Allen st.
Powers, Frank B.,	122 Pearl st.,	Manufacturer, Wason ave.
Powers, Fred H.,	86 Westford ave.,	Manager, 369 Main st.
Pratt, Austin J.,	25 Catharine st.,	Plumber, 19 Wilbraham road.
Pratt, George Dwight,	120 Maple st.,	Retired.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Pratt, Henry J.,	58 Locust st.,	Metal Worker, 531 Worthington st.
Pratt, William J.,	402 North Main st.,	Machinist, Bosch Magneto Co., North Main st.
Price, William R.,	15 Mattoon st.,	Traveling Salesman, Franklin st., New York City.
Proctor, Floyd G.,	158 Pineywoods ave.,	Buyer, 375 Main st.
Proctor, John,	12 Benton place,	Blacksmith, Stockbridge st.
Puffer, Herbert R.,	138 Harvard st.,	Grain Dealer, 197 Lyman st.
Punderson, Samuel F.,	141 St. James ave.,	Coal Dealer, 132 State st.
Putnam, Merton J.,	22 Winthrop st.,	Printer, foot of Howard st.
Quilty, Jeremiah P.,	62 Temple st.,	Merchant Tailor, 332 Main st.
Quimby, Irving A.,	26 Pearl st.,	Merchant, 9 Hampden st.
Quinlan, John F.,	17 Ozark st.,	Assistant Engineer, foot of State st.
Quinlivan, Thomas F.,	31 Bartlett ave.,	Cigar Maker, 419 Chestnut st.
Quinlivan, Thomas P.,	419 Chestnut st.,	Storekeeper, 419 Chestnut st.
Quinn, Timothy,	14 Prospect st.,	Tinsmith, 14 Prospect st.
Quirk, James J.,	223 Plainfield st.,	Teamster, 227 Plainfield st.
Radner, Louis,	46 Greenwood st.,	Window Cleaner, 275 Main st.
Ramsay, John R.,	1052 Sumner ave.,	Sales Manager, 310 Main st.
Randall, Charles H.,	48 Lyndale st.,	Bookkeeper, 2 Hanover st.
Randall, Clarence T.,	113 Wilbraham ave.,	Tinsmith, 837 State st.
Ratell, George,	61 Hampden st., I. O.,	Shipper, Hodges Fibre Carpet Co., I. O.
Rawbone, Henry D.,	844 Main st.,	Toolmaker, 65 Main st., Chicopee Falls.
Raymond, Ernest,	10 Wilbraham ave.,	Clerk, 485 Central st.
Readio, George U.,	62 Yale st.,	Auto Repairer, 62 Yale st.
Reagan, Timothy,	50 Patton st.,	Cigar Salesman, 77 Everett st.
Redden, Andrew F.,	17 George st.,	Clerk, Not employed.
Reed, John C.,	115 Maynard st.,	Real Estate Dealer, 782 State st.
Relyea, Burton,	32 Acushnet ave.,	Foreman, 902 South Main st.
Reynolds, Ambrose H.,	27 Morris st.,	Salesman, 83 Warwick st.
Reynolds, Charles,	28 Ozark st.,	Carpenter, 25 Harrison ave.
Reynolds, Howard S.,	357 Maple st.,	Contractor, 357 Maple st.
Rhodes, Clinton R.,	343 Hancock st.,	Laundryman, 4 Cypress st.
Richard, Harry J.,	11 Murray Hill ave.,	Drug Clerk, 192 Main st.
Richardson, Arthur E.,	49 North Main st.,	Receiving Clerk, 357 Main st.
Richmond, Isaac,	40 Allendale st.,	Grocer, 222 Chestnut st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Riga, Joseph G.,	28 Leyfred ter.,	Importer, 28 Leyfred ter.
Riggs, George L.,	51 Westford ave.,	Manager & President, 89 Logan st.
Ringold, Isaac,	100 Greenwood st.,	Barber, Not employed.
Risley, John J.,	610 Armory st.,	Electrician, 610 Armory st.
Rivard, Charles R.,	32 Hooker st.,	Automobile Operator, 32 Hooker st.
Robbins, Edwin H.,	195 Wilbraham road,	Real Estate Dealer, 307 Main st.
Robbins, Eugene H.,	84 Cedar st.,	Traveling Salesman, 231 Main st.
Robbins, George W.,	229 Wilbraham road,	Lumber Dealer, Parker st.
Robbins, Henry G.,	152 Oak st., I. O.,	Lumber Dealer, Parker st., I. O.
Robbins, Ralph N.,	83 College st.,	Salesman, 19 Sanford st.
Robbins, Ransom E.,	160 Cedar st.,	Assistant Superintendent, 46 Harrison ave.
Roberts, George E.,	114 Cambridge st.,	Foreman, Worcester st, I. O.
Roberts, George R.,	22 Belgrade place,	Clerk, 29 Walnut st.
Roberts, Godfrey,	102 Abbe ave.,	Contractor, 102 Abbe ave.
Robinson, Daniel E.,	25 No. Main st.,	Salesman, 251 Main st.
Robinson, George E.,	46 Temple st.,	Clerk, 48 Harrison ave.
Robinson, George P.,	4 Chestnut st.,	Janitor, 10 Chestnut st.
Rogers, Clifford R.,	38 School st.,	Bookkeeper, Huntington.
Rogers, Frank H.,	150 Union st.,	Carriage Trimmer, 55 Dwight st.
Rogers, Thomas O.,	99 Elliot st.,	Traveling Salesman, 211 Worthington st.
Rollins, Harvey E.,	14 Osgood st.,	Clerk, 144 Main st.
Rood, Fred K.,	700 Chestnut st.,	Merchant, 144 Main st.
Rose, George G.,	385 Orange st.,	Butter & Eggs Dealer, 385 Orange st.
Rosenberg, Frederick W.,	68 Cambridge st.,	Painter & Paper Hanger, 68 Cambridge st.
Rosenberg, Frederick W.,	46 Bancroft st.,	Clerk, 348 Main st.
Ross, James C.,	4 Benton place,	Carpenter, 4 Benton place.
Ross, Joseph M.,	52 Clarendon st.,	Clerk, 500 Main st.
Rounds, Frank A.,	258 Worthington st.,	Rooming-house keeper, 258 Worthington st.
Rowe, Walter C.,	128 Union st.,	Fitter, Stockbridge st.
Ruggles, Elmer E.,	69 Union st.,	Shoe Clerk, Not employed.
Ruppel, John W.,	63 Patton st.,	Storekeeper, 69 Main st.
Russell, Charles P.,	92 Alden st.,	Manufacturer, 47 Taylor st.
Russell, Patrick W.,	33 Broad st.,	Grocer, 822 824 Main st.
Russell, Waterman S. C.,	79 Monmouth st.,	Scientist, 79 Monmouth st.
Ryan, James M.,	38 Biltmore st.,	Manager, 398 Bridge st.
Ryan, Julius A.,	263 Central st.,	Electrician, For the city.
Ryan, Thomas J.,	223 Pine st.,	Plumbing Contractor, 13 Market st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Sackett, Edward B.,	45 Pearl st.,	Merchant, 29 Worthington st.
Sadler, William L.,	48 Magnolia ter.,	Druggist, 530 Main st.
Sagalyn, Raphael,	46 Sumner ter.,	Merchant, 15 Worthington st.
Samble, William Edward, Jr.,	5 Logan st.,	Compositor, c. Harrison ave. and Main st.
Sampson, Thomas P.,	102 Thompson st.,	Undertaker, 333 Dwight st.
Sanderson, Albert B.,	32 Westford ave.,	Assistant Secretary & Treasurer, 37 Harrison ave.
Sandman, Henry J.,	21 Wendell ave.,	Bookkeeper, 3 Elm st.
Sanford, Arthur O.,	70 Calhoun st.,	Salesman, 40 Bliss st.
Sawtell, J. Otis,	162 Westminster st.,	Storekeeper, 376 Main st.
Scanlon, M. Joseph,	14 Lyndale st.,	Walking Delegate, 150 Bridge st.
Schermerhorn, Burton D.,	59 Malden st.,	Fish Dealer, 517 Main st.
Schlafer, Louis E.,	39 Wendell ave.,	Barber, 499 Main st.
Schlatter, William J.,	449 Bay st.,	Florist, 449 Bay st.
Schrade, George F.,	607 Union st.,	Foreman, 83 Charles st.
Schwenger, Johann G.,	11 Yale st.,	Insurance Agent, 500 Main st.
Scott, John L.,	282 White st.,	Builder, 282 White st.
Scott, William A.,	243 Main st.,	Manager, 275 Main st.
Seabury, Harry M.,	55 Harvard st.,	Draughtsman, Besse Building.
Seabury, Kendall E.,	264 Franklin st.,	Machinist, Oak st., Chicopee Falls.
Searles, Stanley W.,	10 Quincy st.,	Watchmaker, 441 State st.
Sears, Charles,	13 Winthrop st.,	Machinist, Not employed.
Seybolt, Francis E.,	97 Albemarle st.,	Broker, 293 Bridge st.
Shannon, Harry W.,	43 King st.,	Merchant, 890 State st.
Shannon, James L.,	770 Sumner ave.,	Manufacturer, 51 Taylor st.
Shannon, Oliver C.,	106 Cambridge st.,	Carpenter, 293 Bridge st.
Shattuck, Raymond B.,	183 Florida st.,	Real Estate Dealer, 293 Bridge st.
Shaw, Benjamin J.,	125 St. James circle,	Real Estate Dealer, 125 St. James circle.
Shaw, Harry C.,	40 Albemarle st.,	Purchasing Agent, 837 State st.
Shea, Daniel E.,	260 Pearl st.,	Draughtsman, 33 Lyman st.
Shea, Jeremiah G.,	1308 North st.,	Brick Layer, 1308 North st.
Shea, John B.,	24 Terrence st.,	Fish Agent, 24 Terrence st.
Shea, John F.,	31 Montmorenci st.,	Electrical Inspector, Municipal Building.
Shea, John J.,	393 Walnut st.,	Plumber, 17 Market st.
Shea, Joseph P.,	48 Wilmont st.,	Salesman, 361-369 Main st.
Shea, Patrick F.,	62 Calhoun st.,	Theatrical Manager, 62 Calhoun st.
Shea, Timothy,	92 Cherry st.,	Expressman, 37 Lyman st.
Shea, Timothy J.,	132 Franklin st.,	Salesman, 346-348 Main st.
Shean, Arthur J.,	663 State st.,	Proprietor, 211 Main st.
Shean, Charles T.,	3 John st.,	Proprietor, 211 Main st.
Shedd, Horace E.,	389 Sumner ave.,	Bookkeeper, 316 Hickory st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Sheehan, Edward J.,	41 Linden st.,	Manager, 332 Main st.
Sheehan, Thomas E.,	41 Linden st.,	Clothing Salesman, 274 Main st.
Sheeley, Henry B.,	67 Central st.,	Carpenter, for Frank Penney.
Sheldon, Theodore S.,	10 Belgrade place,	Cutter, 13 Warren ave.
Shephard, Edward L.,	679 Union st.,	Messenger, 195 State st.
Shepherd, William H.,	36 Sargeant st.,	Division Passenger Agent, 236 Main st.
Sherburne, James S.,	28 Roseland st.,	Proofreader, 381 Main st.
Sherman, Edward,	226 High st.,	Wholesale Grocer, Ware.
Sherman, George N.,	59 Cambridge st.,	Stationary Fireman, A. G. Spaulding, Chicopee.
Sherman, Maurice S.,	17 Fairfield st.,	Editor, 292 Main st.
Sherwood, Malcolm C.,	113 Harvard st.,	Insurance Agent, 244 Main st.
Sherwood, Robert C.,	38 Vassar st.,	Printer, 38 Vassar st.
Sherwood, Samuel D.,	113 Harvard st.,	Insurance Agent, 244 Main st.
Shine, John I.,	369 Bay st.,	Storekeeper, 4 Dawes st.
Shores, George H.,	657 Main st.,	Merchant, 668 Main st.
Short, Harry L.,	33 Thomas st.,	Tool Grinder, Fiske ave.
Shutts, George L.,	54 Allen st.,	Clerk, Worcester st., I. O.
Sibley, Charles H.,	50 Clifton ave.,	Elevator Inspector, Administration Building.
Sickler, John P.,	37 Demond ave.,	Toolmaker, 65 Main st., Chicopee Falls.
Sikes, Melvin B.,	504 White st.,	Retired.
Simes, Frederick D.,	122 Marion st.,	Storekeeper, 806 State st.
Simonds, Frank L.,	26 Lenox st.,	Commercial Traveler, 190 Franklin st., N. Y.
Simpson, Christopher G.,	220 Pearl st.,	Manager, 29 Worthington st.
Sistare, Frederick R.,	48 Forest st.,	Manager, 346 Main st.
Skinner, Thomas J.,	32 Besse place,	Assistant Night Foreman, Adams Express Depot.
Slattery, Michael J.,	30 Maple st.,	Soda Manufacturer, 561½ Main st.
Sleigh, William B.,	64 Westford ave.,	Manager, 58 Harrison ave.
Smiddy, James H.,	131 Greenwood st.,	Shipping Clerk, 37 Harrison ave.
Smith, Charles H.,	46 Irvington ave.,	Retired.
Smith, E. Lovell,	29 Arch st.,	Draughtsman, 168 Birnie ave.
Smith, Fred C.,	83 Walnut st.,	Proprietor, 207 Worthington st.
Smith, Fred E.,	62 Greenwich st.,	Foreman, 68 Birnie ave.
Smith, Henry S.,	84 Allen st.,	Carpenter, 37 Harrison ave.
Smith, James A.,	688½ Main st.,	Paper Maker, Brightwood.
Smith, John D.,	35 Dartmouth st.,	Druggist, 271 Main st.
Smith, John N.,	430 Union st.,	Clerk, 473 State st.
Smith, Walter Abbe,	50 Rochelle st.,	Foreman, No. Main st.
Soutra, Arthur E.,	37 Wellington st.,	Insurance Clerk, 500 Main st.
Speight, Herbert S.,	74 White st.,	Poultry Business, Plumtree road.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Spencer, Charles,	71 Gardner st.,	Cigar Manufacturer, 75 Gardner st.
Springer, John, Jr.,	10 Allendale st.,	Foreman, 123 Carew st.
Springer, Oscar F.,	225 Walnut st.,	Furniture Dealer, 225 Walnut st.
Sproat, Andrew T.,	186 Oak st., I. O.,	Foreman, Pine st., I. O.
Squire, Francis F.,	250 St. James ave.,	Real Estate Dealer, 318 Main st.
Squires, Charles E.,	83 Central st.,	Manager, 117 Lyman st.
Stack, William J.,	92 Manhattan st.,	Chauffeur, 21-25 Clinton st.
Stacy, Harry W.,	31 Grenada ter.,	Manufacturer, 79 Taylor st.
Stagnaro, Joseph H.,	99 Union st.,	Fruit Dealer, 693 State st.
Stalter, Frederick M.,	565 Main st.,	Tinsmith, foot of Church st., W. Spfd.
Starks, Charles H.,	135 Pine st.,	Painter & Paper Hanger, 135 Pine st.
Starr, Albert C.,	130 Mulberry st.,	Special Agent, 283 Worthington st.
Starr, Bentley C.,	25 Mattoon st.,	Electrician, 201 Dwight st.
Stearns, Leslie B.,	90 Amherst st.,	Assistant Editor, 292 Main st.
Stebbins, John W.,	Crescent Hill,	Traveling Salesman, Cabot st., Holyoke.
Stebbins, Leonard S.,	90 Fairfield st.,	Dentist, 90 Fairfield st.
Steinberg, Jacob,	20 Arbor st.,	Storekeeper, 1 East st., Chicopee Falls.
Steinbrunn, Harry E.,	3 Central st.,	Real Estate Dealer, 264 Main st.
Stephens, John D.,	114 Albemarle st.,	Cashier, 837 State st.
Sternburg, Kurt Rudolph,	24 Chapin ter.,	Treasurer, foot of Mechanic st.
Sterns, Arthur C.,	512 Worthington st.,	Traveling Salesman, 141 Chestnut st.
Stevens, Grenville M.,	72 Dartmouth st.,	Jeweler, 123 State st.
Stimson, Joseph P.,	N. S. Allen st.,	Steam Fitter, 146 State st.
Stocker, Arthur B.,	19 Hiawatha st.,	City Editor, 292 Main st.
Stoddard, Frank,	34 Morris st.,	Awning Maker, Not employed.
Stone, Charles A.,	176 Pearl st.,	Merchant, 55-63 Lyman st.
Stone, George A.,	107 Spring st.,	Estimator, J. H. Rankin, East Longmeadow.
Stowell, Byron F.,	79 Dawes st.,	Superintendent, 160 Wilbraham ave.
Strout, Fred P.,	565 Union st.,	Bookkeeper, 346-348 Main st.
Sturtevant, Frank F.,	420 Main st.,	Clerk, 361-369 Main st.
Sturtevant, George A.,	31 Maple st.,	Clerk, 144 State st.
Sullivan, Daniel J.,	35 Donald st.,	Foreman, 354 Birnie ave.
Sullivan, John J.,	7 Greenwich st.,	Traveling Salesman, Not employed.
Sullivan, John M.,	57 Everett st.,	Treasurer, 220 Franklin st.
Sullivan, Joseph J.,	107 Garfield st.,	Laundryman, 22 East Court st.
Sunter, Alexander E.,	77 Alexander st.,	Druggist, 438 Chestnut st.
Sutter, James S.,	513 Hancock st.,	Clerk, 19 Hampden st.
Sweet, Alvan A.,	Boston road, I. O.,	Poultry Business, Boston road.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Swift, Ernest A.,	224 Oak Grove ave.,	Treasurer, 47 Dwight st.
Swords, John J.,	176 Eastern ave.,	Steamfitter, 19 Worthington st.
Symonds, Charles M.,	172 William st.,	Teamster, 36 Taylor st.
Taft, Edwin R.,	683 Sumner ave.,	Photographer, 447 Main st.
Tait, George G.,	37 Vinton st.,	Milk Dealer, 132 Cass st.
Talmadge, Leslie K.,	31 Maple st.,	Manager, 382 Bridge st.
Tarbox, William H.,	37 Maynard st.,	Enameler, 837 State st.
Tate, William J.,	36 Massasoit st.,	Cabinet Maker, 49 Boylston st.
Taylor, Albert C.,	22 Greenwich st.,	Office Manager, Brightwood.
Taylor, George H.,	2 Lebanon place,	Locksmith, 26 Market st.
Taylor, William C.,	25 Federal st.,	Retired.
Tehan, James H.,	108 Johnson st.,	Manager, 367 Main st.
Terry, George H.,	N. S. Switzer ave.,	Pressman, 93-95 Orleans st.
Thacker, George,	52 Horace st.,	Manager, 357 Main st.
Thayer, Oliver S.,	76 Pomona st.,	Salesman, U. S. Paint Co., Providence, R. I.
Thomas, Harrie E.,	78 Brunswick ave.,	Mechanic, 837 State st.
Thomas, Charles J.,	3 Central st.,	Wine Clerk, 704 Main st.
Thompson, Clifford P.,	27 Chase ave.,	Druggist, 503 Main st.
Thomson, William J.,	911 Armory st.,	Carpenter, 911 Armory st.
Thrasher, Charles L.,	7 Winthrop st.,	Grocer, 666 Main st.
Thurston, Edward S.,	75 Avon place,	Electrician, 135 Union st.
Thurston, George E.,	48 Abbe ave.,	Tool Maker, Stockbridge st.
Tifft, Charles,	54 Ridgewood place,	Banker, 381 Main st.
Todd, Charles D.,	44 Jasper st.,	Student, 287 Hickory st.
Tolman, Frank W.,	13 Underwood st.,	Manager, 317 Liberty st.
Toomey, James F.,	20 Cleveland st.,	Pressman, Warwick st.
Toomey, Michael S.,	113 Hancock st.,	Plumber, 240 Main st.
Tourtellotte, Albert D.,	26 Trillium st.,	Foreman, B. & M. Machine Shop.
Tower, William J.,	192 Union st.,	Bookkeeper, Mittineague.
Towne, Ernest E.,	29 Seventh st.,	Real Estate Dealer, 414 Main st.
Treworgy, Harold S.,	88 Walnut st.,	Accountant, 293 Bridge st.
Triggs, Joseph E.,	24 Parkwood st.,	Manager, 148 Lyman st.
Triggs, Patrick H.,	7 Atwood place,	Agent, 19 Sanford st.
Trudeau, Francis,	17 Howard place,	Plumber, 240 Main st.
True, Harry A.,	55 Walnut st.,	Salesman, 274 Main st.
Truesdell, William E.,	74 Kenwood park,	Merchant, 382 Bridge st.
Tubbs, C Fred.,	75 Montrose st.,	Filer, Stockbridge st.
Twohig, John J.,	9 Harvard st.,	Janitor, Cor. Bay and Sherman sts.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Van Norman, George H.,	470 Sumner ave.,	Photographer, 470 Sumner ave.
Vining, George C.,	934 State st.,	Profiler, Stockbridge st.
Vogel, Fred A.,	24 Amherst st.,	Superintendent, 65 Main st., Chicopee Falls.
von Woedtke, Leo D.,	30 Woodside ter.,	Assistant Purchasing Agent, 499 Main st.
Walker, Charles O.,	80 Massachusetts ave.,	Accountant, 15-31 Elm st.
Wallenberg, John S.,	249 Tyler st.,	Cabinet Maker, 850 State st.
Walsh, Daniel M.,	92 Euclid ave.,	Mason, 293 Bridge st.
Walsh, John J.,	93½ Bond st.,	Brick Mason.
Walter, Leo J.,	409 Franklin st.,	Electrician, 5 North Main st.
Walters, George S.,	14 Howard place,	Grocer, 75 Willow st.
Walters, William H.,	884 Worthington st.,	Clerk, 19 Pearl st., Hartford, Conn.
Ward, Eugene B.,	49 Pearl st.,	Clerk, 376 Main st.
Ward, John F.,	522 Worthington st.,	Boarding House Keeper, 522 Worthington st.
Wardwell, Walter H.,	43 Warriner ave.,	Clerk, 12 East Court st.
Warner, Dwight H.,	279 Orange st.,	Carpenter, 137 Oakland st.
Warner, Hiram Leroy,	N. S. Stony Hill road,	Farmer, Stony Hill.
Warnock, Alexander,	78 Beaumont st.,	Wire Weaver, Heywood st., cor. Warwick st.
Warnock, John,	112 Alderman st.,	Bookkeeper, Heywood st.
Warriner, Alford H.,	254 Pearl st.,	Insurance Clerk, 394 Main st.
Washburn, Cheney D.,	N. S. Buena Vista Plaza,	Undertaker, 172 State st.
Washburn, Kirk N.,	53 Dartmouth st.,	Publisher, 29 Worthington st.
Watson, Emory C.,	133 Maple st.,	Treasurer, 46 Harrison ave.
Watts, Allen L.,	660½ Union st.,	Janitor, Court st.
Webb, Charles B., Jr.,	331 Dickinson st.,	Sundry Man, Stockbridge st.
Webb, Fred E.,	33 Churchill st.,	Milk Dealer, 33 Churchill st.
Webb, George S.,	754 Chestnut st.,	Electrician, 5 North Main st.
Webster, Harry G.,	298 Union st.,	Real Estate Dealer, 23 Elm st.
Weeks, Clair W.,	11 Dartmouth st.,	Storekeeper, 395 Main st.
Welch, Henry E.,	18 Bristol st.,	Shipping Clerk, 439 Main st.
Welch, Thomas J.,	78 Charles st.,	Restaurant Keeper, 420 Dwight st.
Welch, William M.,	32 West Alvord st.,	Salesman, Detroit White Lead Co.
Werder, Paul F.,	242 Pearl st.,	Manager, 242 Pearl st.
Wesson, Harold,	220 Maple st.,	Manufacturer, Stockbridge st.
Wesson, Joseph H.,	13 Federal st.,	Manufacturer, Stockbridge st.
West, Allen S.,	63 King st.,	Shoe Buyer, 350 Main st.
West, Frank M.,	300 Forest Park ave.,	Manufacturer, 225 Liberty st.
West, Louis W.,	507 Dickinson st.,	Machinist, Stockbridge st.
Wheat, William G.,	65 Dartmouth st.,	Storekeeper, 357 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Wheaton, Lewis E.,	35 Morgan st.,	Stationary Engineer, 7 Taylor st.
Wheeler, Charles A.,	7 Winthrop st.,	Salesman, 293 Bridge st.
Whipple, Fred C.,	135 Spring st.,	Insurance Agent, 317 Main st.
Whipple, Robert E.,	121 Kensington ave.,	Jeweler, 128 State st.
Whitaker, John F.,	14 Parkwood st.,	Machinist, 53 Wilbraham road.
White, George H.,	18 Norfolk st.,	Builder, 23 New st.
White, Medosh,	128 Union st.,	Barber, 15 Besse place.
Whitelock, Samuel F.,	82 Pearl st.,	Cigar Maker, 457 Worthington st.
Whitmore, William R.,	128 Mulberry st.,	Painting Teacher, 128 Mulberry st.
Whitney, Samuel R.,	32 Spencer st.,	Draughtsman, 25 Harrison ave.
Whittaker, Clifford D.,	84 Spring st.,	Foreman, 499 Main st.
Whittum, Norman E.,	23 Homer st.,	Printer, 367 Worthington st.
Wiegand, Carl Anton,	32 Birnie ave.,	Manufacturer, 30 Taylor st.
Wightman, William,	227 King st.,	Janitor, 227 King st.
Wilcox, Fred E.,	107 Oak st., I. O.,	Merchant, Cor. Main and Oak sts., I. O.
Williams, Wood,	21 Avon place,	Manager, 340 Bridge st.
Williston, William C.,	49 Dawes st.,	Brick Mason, 293 Bridge st.
Wilson, George,	312 Armory st.,	Steel Engraver, Napier st.
Wilson, Henry J.,	86 Adams st.,	Baker, 546 Main st.
Wilson, James A.,	76 Northampton ave.,	Lithographer, 140 Wilbraham ave.
Winans, Harry J.,	86 Princeton st.,	Clerk, 500 Main st.
Wing, Leon M.,	241 College st.,	Sign Writer, 837 State st.
Winter, Dwight R.,	36 Buckingham st.,	Real Estate Dealer, 3 Elm st.
Winter, Theodore B.,	109 Yale st.,	Clerk, 423 Main st.
Winters, Lawrence,	288 Armory st.,	Salesman, 435 Dwight st.
Wolcott, Joseph N.,	15 Keith st.,	Mason, 371 Dickinson st.
Wolfe, Louis,	79 Cedar st.,	Hardwood Finisher, 390-396 Main st.
Wood, Clifford L.,	33 Margaret st.,	Electric Inspector, 73 State st.
Wood, Dwight B.,	14 Amaron st.,	Clerk, 195 State st.
Wood, Eugene E.,	191 Marion st.,	Treasurer, 33 Essex st.
Wood, Francis B.,	125 Greene st.,	Paper Cutter, 140 Wilbraham ave.
Wood, George H.,	24 Besse place,	Paper Trimmer, 138 Wilbraham ave.
Wood, Henry C.,	390 Orange st.,	Clerk, 139 State st.
Wood, Walter H.,	948 State st.,	Assistant Treasurer, Cold Spring ave., West Springfield.
Woodbury, Milo K.,	672 Chestnut st.,	Merchant, 144 Main st.
Woods, John G.,	190 Thompson st.,	Furniture Dealer, Hartford, Conn.
Woods, Raymond G.,	101 Spring st.,	Printer, Wason ave.
Woodward, Arthur H.,	89 Walnut st.,	Assistant Superintendent, Court st.
Woodworth, Charles A.,	62 High st.,	Real Estate Dealer, 25 Harrison ave.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Wooster, Edwin C.,	355 Bay st.,	Salesman, Standard Oil Co., Albany st.
Workheiser, Frank B.,	16 Howard st.,	Manager, 95 Bridge st.
Worthington, Albert E.,	708 Chestnut st.,	Assistant Manager, 9 Main st., Holyoke.
Wrenn, George H.,	421 Maple st.,	Cigar Manufacturer, 114 State st.
Wright, Horace P.,	381 State st.,	Cigar Manufacturer, 479 Main st.
Wright, Royal J.,	45 Bowdoin st.,	Treasurer, 405 Dwight st.
Wynne, John,	65 Melrose st.,	Laborer, for the City.
Yardley, William H.,	18 Noble st.,	Machinist, Wason ave.
Yarrington, George T.,	572 Carew st.,	Automobile Repairer, 824 State st.
Yost, Arthur C.,	60 Gardner st.,	Cigar Maker, Suffield, Conn.
Young, Lloyd E.,	259 Central st.,	Clerk, 350 Main st.
Young, Wilbur F.,	273 State st.,	Manufacturing Chemist, 75 Temple st.
Zimmer, Christian W.,	82 Walnut st.,	Gilder, 21 Harrison ave.
Zoerb, John C.,	308 Bay st.,	Machinist, 837 State st.

CITY OF SPRINGFIELD, June 15, 1916.

The foregoing is a list of jurors prepared for the City of Springfield under the provisions of law applicable thereto.

JOHN W. NOLAN,
WARREN P. UNDERWOOD,
STEPHEN F. BIBLE,
ELIJAH A. NEWELL,
Registrars of Voters.

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CITY AUDITOR.

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THE CITY OF

SPRINGFIELD, MASSACHUSETTS.

DECEMBER 30, 1916.

To His Honor the Mayor, and the City Council:—

During the fiscal year ended on November 30, 1916, this department has audited all bills and pay rolls presented for payment. It has also, as required by ordinance, made the quarterly examinations of the accounts of the City Treasurer and of the Water Department, and the semi-annual examinations of the accounts of the City Clerk and of the City Collector, all of which have been found correct.

The accounts of the Treasurer for the Commissioners of the Sinking Funds have been examined by this department and found correct.

Respectfully submitted,

WM. G. McINTYRE,
City Auditor.

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CONSOLIDATED BALANCE SHEET.
(After Closing.)

CITY OF SPRINGFIELD, MASS.
November 30, 1916.

	Totals	FUNDS				
		General	Water	Capital	Sinking	Special and Trust
Assets:						
Cash in Banks and Office of City Treasurer,	$811,217.84	$51,450.18	$7,268.01	$601,540.80	$120,708.11	$30,254.74
Revenues and Accounts Receivable (Schedule A),	969,423.28	895,724.50	63,869.88	9,828.90		
Property (Schedule B),	18,887,328.04		5,579,200.93	13,108,091.11		
Stores (Schedule K),	153,198.97	55,016.51	98,182.46			
Investments,	1,242,850.00				1,242,850.00	
Total Assets,	$21,864,018.08	$1,002,191.14	$5,788,521.28	$13,719,460.80	$1,363,558.11	$30,254.74
Liabilities:						
Warrants Payable,	$279,706.21	$221,974.02	$7,860.68	$48,874.41		$97.10
Bonded Indebtedness (Schedule C):						
City Bonds—Outside Limit,	$2,056,000.00			$2,056,000.00		
City Bonds—Within Limit,	4,959,400.00			4,959,400.00		
Public Utility Bonds,	2,207,000.00		2,207,000.00			
Total Bonds Outstanding,	$9,222,400.00		$2,207,000.00	$7,015,400.00		
Less Sinking Fund Reserves,	1,366,608.11		132,719.49	1,233,888.62		
Net Bonded Indebtedness,	$7,855,791.89		$2,074,280.51	$5,779,511.38		

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CONSOLIDATED BALANCE SHEET.—Continued.

	Totals	FUNDS				
		General	Water	Capital	Sinking	Special and Trust
Reserves:						
For Outstanding Orders,	$847.35	$847.35				
For Redemption of Bonds,	1,368,608.11		$132,719.49	$1,235,888.62		
For Abatement of Taxes,	2,572.59	2,572.59				
For Abatement of Accounts Receivable,	18,249.31	8,101.08	319.35	9,828.88		
For Extraordinary and Unforeseen Expenses,	1,923.09	1,923.09				
For Lombard Reservoir Lot Fund,	300.00		300.00			
Total Reserves,	$1,392,500.45	$13,444.11	$133,338.84	$1,245,717.50		
Sinking Funds,	$1,368,608.11				$1,368,608.11	
Special Funds:						
Sherman D. Porter Fund,	$10,042.47					$10,042.47
Court Square Extension Fund,	29,754.84					29,754.84
Total Special Funds,	$39,797.31					$39,797.31
Total Liabilities,	$10,984,403.97	$237,418.13	$2,214,980.03	$7,073,563.29	$1,368,608.11	$39,834.41
Excess of Assets:						
Surplus,	10,929,614.11	764,773.01	3,518,944.19	6,645,896.91		
	$21,864,018.08	$1,002,191.14	$5,733,924.22	$13,719,460.20	$1,368,608.11	$39,834.41

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CONSOLIDATED FUND STATEMENT.
(After Closing.)

CITY OF SPRINGFIELD, MASS.
November 30, 1916.

	Totals	FUNDS				
		General	Water	Capital	Sinking	Special and Trust
RESOURCES:						
Unapplied Cash,	$547,014.51	*$172,523.89*	$777.19	$553,205.79	$125,758.11	$39,797.31
Available Resources (Schedule A),	969,423.23	895,724.50	63,869.85	9,828.88		
Investments,	1,242,850.00				1,242,850.00	
Authorized Expenditures—Not Financed (Schedule D),	26,788.84			26,788.84		
Total Fund Resources,	$2,786,076.58	$723,200.61	$64,647.04	$589,823.51	$1,368,608.11	$39,797.31
APPROPRIATIONS AND RESERVES:						
Unencumbered Balances of Appropriations (Schedule E),	$472,106.90	$7,422.41		$464,684.49		
Premium on Bonds,	22,778.04	22,778.04				
Unappropriated Revenues,	18,621.27	18,621.27				
Reserves:						
For Encumbrances of Appropriations (Schedule E),	$111,358.89	$847.35		$110,511.54		
For Abatement of Taxes,	2,572.59	2,572.59				
For Abatement of Revenues Accrued,	18,249.31	8,101.08	$319.35	9,828.88		
For Extraordinary and Unforeseen Expenses,	1,923.09	1,923.09				
For Redemption of Public Debt,	1,368,608.11				$1,368,608.11	
For Re-Appropriation,	4,798.60			4,798.60		
For Special Funds,	40,097.31		300.00			$39,797.31
Total Reserves,	$1,547,607.90	$13,444.11	$619.35	$125,139.02	$1,368,608.11	$39,797.31
Total Appropriations and Reserves,	$2,061,114.11	$62,265.83	$619.35	$589,823.51	$1,368,608.11	$39,797.31
Surplus (Schedule F),	724,962.47	660,934.78	64,027.69			
	$2,786,076.58	$723,200.61	$64,647.04	$589,823.51	$1,368,608.11	$39,797.31

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REVENUES AND ACCOUNTS RECEIVABLE.

(Schedule A.)

CITY COLLECTOR IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

Account	DEBIT			CREDIT			DEBIT
	Uncollected Nov. 30, 1915	Committed during the year	Total	Payments to City Treasurer	Abatements, etc.	Total	Uncollected Nov. 30, 1916
GENERAL FUND.							
Miscellaneous Revenues:							
Charities Department—Care of Inmates at Almshouse,	$803.38	$7,814.60	$8,617.98	$5,453.80	$72.14	$5,525.94	$3,092.04
City Collector—Interest,	.....	23,145.47	23,145.47	23,145.47	.....	23,145.47	.....
Fees,	.....	8,100.14	8,100.14	8,100.14	.....	8,100.14	.....
Health Department—Care of Patients at Hospital,	13,987.78	20,321.31	34,309.09	12,824.47	6,053.21	18,877.68	15,431.41
Licenses:							
Building Department,	.....	266.00	266.00	266.00	.....	266.00	.....
Health Department,	.....	11.00	11.00	11.00	.....	11.00	.....
Mayor's Department,	1.00	8,942.50	8,943.50	8,923.50	20.00	8,943.50	.....
Police Department,	.....	6,123.00	6,123.00	6,123.00	.....	6,123.00	.....
Park Department—Charges for Services,	.....	51.00	51.00	51.00	.....	51.00	.....
Permits:							
Sewer Entrances,	160.00	39,929.62	40,089.62	39,516.10	154.54	39,670.64	418.98
Signs,	.....	50.00	50.00	46.00	.....	46.00	4.00
Street Obstructions,	.....	8,129.00	8,129.00	8,129.00	.....	8,129.00	.....
Street Opening,	95.35	499.45	594.80	560.55	1.50	562.05	32.75
Rents:							
Administration Building,	258.15	3,355.95	3,614.10	3,097.80	.....	3,097.80	516.30
Auditorium,	.....	165.00	165.00	115.00	.....	115.00	50.00
Equipment—Streets and Engineering,	62.94	628.06	691.00	633.40	41.00	674.40	16.60
Miscellaneous,	32.96	2,571.59	2,604.55	2,257.96	.....	2,257.96	346.59
Organ,	.....	10.00	10.00	.....	.....	.....	10.00
School Halls,	94.00	1,060.00	1,154.00	1,075.00	75.00	1,150.00	4.00
Schoolhouse Property,	208.00	2,702.00	2,910.00	2,607.60	110.00	2,717.60	192.40

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REVENUES AND ACCOUNTS RECEIVABLE.—Continued.
(Schedule A.)

CITY COLLECTOR IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

Account	DEBIT			CREDIT			DEBIT
	Uncollected Nov. 30, 1915	Committed during the year	Total	Payments to City Treasurer	Abatements, etc.	Total	Uncollected Nov. 30, 1916
GENERAL FUND.							
School Department:							
Moving Picture Fees,	.....	$369.65	$369.65	$308.50	.....	$308.50	$61.15
Tuition—Central High School,	$1,383.00	4,835.00	6,218.00	4,846.00	$50.00	4,896.00	1,322.00
Evening High School,	.....	676.12	676.12	676.12	.....	676.12	.....
Evening School of Trades,	.....	2,207.66	2,207.66	1,739.66	.....	1,739.66	468.00
Evening School—Vocational,	.....	24.50	34.50	14.00	.....	14.00	20.50
Graded Schools,	108.00	1,297.09	1,405.09	1,136.46	254.63	1,391.09	14.00
High School of Commerce,	2,226.50	7,220.00	9,446.50	6,135.00	110.00	6,245.00	3,201.50
Technical High School,	3,529.50	11,445.00	14,974.50	11,025.00	320.00	11,345.00	3,629.50
Vocational School,	1,030.00	3,127.50	4,157.50	3,130.00	437.50	3,567.50	590.00
Streets and Engineering, Department of:							
Bridges,	.....	1,513.52	1,513.52	1,376.47	137.05	1,513.52	.....
Engineering Services,	5.32	4.65	9.97	9.97	.....	9.97	.....
Street Sprinkling—Street Railway Co.,	.....	5,030.40	5,030.40	2,500.00	.....	2,500.00	2,530.40
Miscellaneous Sales:							
Charities Department,	47.50	3,716.16	3,763.66	3,711.91	.....	3,711.91	51.75
City Property:							
Municipal Group,	.....	25.00	25.00	25.00	.....	25.00	.....
Rifle Range,	.....	15.00	15.00	15.00	.....	15.00	.....
Schools,	45.00	28.72	73.72	68.72	.....	68.72	5.00
Fire Department,	.....	175.00	175.00	175.00	.....	175.00	.....
Health Department,	3.75	.....	3.75	3.75	.....	3.75	.....
Police Department,	.....	1,163.00	1,163.00	1,163.00	.....	1,163.00	.....
School Department,	.....	693.91	693.91	293.04	.....	293.04	400.87
School Department—Vocational School,	.....	885.28	885.28	885.28	.....	885.28	.....
Streets and Engineering, Department of,	1,314.17	2,814.65	4,128.82	3,330.35	533.47	3,863.82	265.00

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REVENUES AND ACCOUNTS RECEIVABLE.—Continued.
(Schedule A.)

CITY COLLECTOR IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

Account	DEBIT			CREDIT			DEBIT
	Uncollected Nov. 30, 1915	Committed during the year	Total	Payments to City Treasurer	Abatements, etc.	Total	Uncollected Nov. 30, 1916
GENERAL FUND.							
Recovered Expenditures:							
Charities Department,	$1,610.98	$25,582.16	$27,193.14	$14,741.89	$842.10	$15,583.99	$11,609.15
City Property—Schools,	.....	27.59	27.59	27.59	.....	27.59	.....
Fire Department,	.....	36.90	36.90	27.90	.....	27.90	9.00
Health Department,	7.50	28.50	36.00	24.00	.....	24.00	12.00
Streets and Engineering, Department of:							
Bridges,	.....	1,215.15	1,215.15	1,119.77	3.92	1,123.69	91.46
Forestry,	.....	360.38	360.38	244.23	46.48	290.71	69.67
Highways,	5,442.90	17,559.58	23,002.48	16,952.07	341.43	17,293.50	5,708.98
Plainfield Street Bridge,	.....	12,000.00	12,000.00	12,000.00	.....	12,000.00	.....
Repair Shop,	.....	81.58	81.58	53.99	.....	53.99	27.59
Sewers,	352.01	2,282.74	2,634.75	2,249.63	.....	2,249.63	385.12
Sidewalks and Curbing,	.....	3,398.97	3,398.97	2,711.41	67.03	2,778.44	620.53
Street Cleaning,	.....	560.49	560.49	560.49	.....	560.49	.....
Street Oiling,	.....	1,741.78	1,741.78	851.28	7.50	858.78	883.00
Special Assessments:							
Betterments,	.....	19,558.68	19,558.68	7,303.38	2,112.76	9,416.14	10,142.54
Sidewalks and Curbing,	3,742.59	45,367.01	49,109.60	38,147.33	607.68	38,755.01	10,354.59
Street Watering—1915,	7,404.00	.....	7,404.00	7,396.62	7.38	7,404.00	.....
Street Watering—1916,	.....	36,776.17	36,776.17	28,048.02	305.72	28,353.74	8,422.43
Taxes—1913,	125.29	.....	125.29	.....	125.29	125.29	.....
Taxes—1914,	2,074.09	.....	2,074.09	1,394.77	679.32	2,074.09	.....
Taxes—1915,	754,660.49	15,629.42	770,289.91	758,764.25	10,748.57	769,512.82	777.09
Taxes—1916,	.....	3,680,052.68	3,680,052.68	2,848,047.49	72,932.65	2,920,980.14	759,072.54
Taxes—Paid Since Abatement,	.....	116.98	116.98	116.98	.....	116.98	.....
	$800,816.15	$4,043,530.21	$4,844,346.36	$3,906,288.11	$97,197.87	$4,003,485.98	$840,860.38

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REVENUES AND ACCOUNTS RECEIVABLE.—Concluded.
(Schedule A.)

CITY COLLECTOR IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

Account	DEBIT			CREDIT			DEBIT
	Uncollected Nov. 30, 1915	Committed during the year	Total	Payments to City Treasurer	Abatements, etc.	Total	Uncollected Nov. 30, 1916
WATER FUND.							
Water Department:							
Water Rates,	$15,654.28	$447,265.19	$462,919.47	$411,341.78	$1,117.79	$412,459.52	$50,459.95
Miscellaneous Sales,	7,126.61	59,326.41	66,453.02	52,788.29	254.83	53,043.12	13,409.90
	$22,780.89	$506,591.60	$529,372.49	$464,130.02	$1,372.62	$465,502.64	$63,869.85
CAPITAL FUND.							
Hillman Street Extension,	$30,276.10	.....	$30,276.10	$20 447.22	.....	$20,447.22	$9,828.88

CITY TREASURER IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

GENERAL FUND.							
Miscellaneous Sales:							
City Treasurer,	.....	$95.00	$95.00	.....	.....	.....	$95.00
Building Department,	.....	.45	.45	.....	.....	.....	.45
Police Department,	.....	3.00	3.00	.....	.....	.....	3.00
Public Parks,	.....	2.00	2.00	.....	.....	.....	2.00
School Department,	.....	24.00	24.00	.....	.....	.....	24.00
Recovered Expenditures:							
Refunds:							
Charities Department,	.....	3.32	3.32	.....	.....	.....	3.32
Police Department,	.....	2.00	2.00	.....	.....	.....	2.00
Streets and Engineering,	.....	36,969.86	36,969.86	.....	.....	.....	36,969.86
Workmen's Compensation,	.....	86.70	86.70	.....	.....	.....	86.70
Taxes:							
Street Railway,	.....	13,734.60	13,734.60	.....	.....	.....	13,734.60
Corporation,	.....	3,943.19	3,943.19	.....	.....	.....	3,943.19
		$54,864.12	$54,864.12				$54,864.12

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PROPERTY.

(Schedule B.)

CAPITAL FUND.

BUILDING COMMISSIONER.			
Equipment.			
Office,.....		$76.18	
Automobile,.....		427.00	
			$503.18*
CHARITIES.			
Land.			
Almshouse Farm,.....		$75,000.00	
Buildings.			
Almshouse,.....		27,256.50	
Equipment.			
Operating,.....		1,570.93*	
			103,827.43
CITY AUDITOR.			
Equipment.			
Operating,.....			305.50*
CITY PROPERTY COMMITTEE.			
Equipment.			
Operating,.....			81.50*
CITY TREASURER.			
Equipment.			
Operating,.....			20.00*
FIRE DEPARTMENT.			
Land.			
Armory Street Station,.....	$2,000.00		
Chestnut Street Station,.....	22,500.00		
Margaret Street Station,.....	2,600.00		
Mill Street Station,.....	8,000.00		
Mill River Lane Station,.....	500.00		
North Street Station,.....	14,000.00		
North Main Street Station,.....	30,800.00		
Oak Street, I. O., Station,.....	2,000.00		
Oakland Street Station,.....	3,500.00		
Pine Street Station,.....	4,000.00		
Plainfield Street Station,.....	2,000.00		
Walnut Street Station,.....	7,100.00		
Winchester Park Station,.....	7,000.00		
		$106,000.00	
Buildings.			
Armory Street Station,.....	$16,000.00		
Boston Road Station,.....	200.00		
Chestnut Street Station,.....	14,500.00		
Court Street Fire Headquarters,.....	101,620.00		
Margaret Street Station,.....	22,500.00		
Mill Street Station,.....	16,500.00		
Mill River Lane Station,.....	2,000.00		
North Street Station,.....	58,000.00		
North Main Street Station,.....	20,000.00		
Oak St., I. O., Station,.....	16,000.00		
Forward,.....	$267,320.00	$106,000.00	$104,737.61

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THE CITY OF

SPRINGFIELD, MASSACHUSETTS.

DECEMBER 30, 1916.

To His Honor the Mayor, and the City Council:—

During the fiscal year ended on November 30, 1916, this department has audited all bills and pay rolls presented for payment. It has also, as required by ordinance, made the quarterly examinations of the accounts of the City Treasurer and of the Water Department, and the semi-annual examinations of the accounts of the City Clerk and of the City Collector, all of which have been found correct.

The accounts of the Treasurer for the Commissioners of the Sinking Funds have been examined by this department and found correct.

Respectfully submitted,

WM. G. McINTYRE,
City Auditor.

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CONSOLIDATED BALANCE SHEET.
(After Closing.)

CITY OF SPRINGFIELD, MASS.
November 30, 1916.

	Totals	FUNDS				
		General	Water	Capital	Sinking	Special and Trust
ASSETS:						
Cash in Banks and Office of City Treasurer,	$811,217.84	$51,450.13	*$7,365.01*	$601,540.20	$125,758.11	$39,834.41
Revenues and Accounts Receivable (Schedule A),	969,423.23	895,724.50	63,869.85	9,828.88		
Property (Schedule B),	18,687,328.04		5,579,236.92	13,108,091.12		
Stores (Schedule K),	153,198.97	55,016.51	98,182.46			
Investments,	1,242,850.00				1,242,850.00	
Total Assets,	$21,864,018.08	$1,002,191.14	$5,733,924.22	$13,719,460.20	$1,368,608.11	$39,834.41
LIABILITIES:						
Warrants Payable,	$279,706.21	$223,974.02	$7,360.68	$48,334.41		$37.10
Bonded Indebtedness (Schedule C):						
City Bonds—Outside Limit,	$2,056,000.00			$2,056,000.00		
City Bonds—Within Limit,	4,959,400.00			4,959,400.00		
Public Utility Bonds,	2,207,000.00		$2,207,000.00			
Total Bonds Outstanding,	$9,222,400.00		$2,207,000.00	$7,015,400.00		
Less Sinking Fund Reserves,	1,368,608.11		132,719.49	1,235,888.62		
Net Bonded Indebtedness,	$7,853,791.89		$2,074,280.51	$5,779,511.38		

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CONSOLIDATED BALANCE SHEET.—Continued.

	Totals	FUNDS				
		General	Water	Capital	Sinking	Special and Trust
Reserves:						
For Outstanding Orders,	$847.35	$847.35				
For Redemption of Bonds,	1,368,608.11		$132,719.49	$1,235,888.62		
For Abatement of Taxes,	2,572.59	2,572.59				
For Abatement of Accounts Receivable,	18,249.31	8,101.08	319.35	9,828.88		
For Extraordinary and Unforeseen Expenses,	1,923.09	1,923.09				
For Lombard Reservoir Lot Fund,	300.00		300.00			
Total Reserves,	$1,392,500.45	$13,444.11	$133,338.84	$1,245,717.50		
Sinking Funds,	$1,368,608.11				$1,368,608.11	
Special Funds:						
Sherman D. Porter Fund,	$10,042.47					$10,042.47
Court Square Extension Fund,	29,754.84					29,754.84
Total Special Funds,	$39,797.31					$39,797.31
Total Liabilities,	$10,984,403.97	$237,418.13	$2,214,980.03	$7,073,563.29	$1,368,608.11	$39,834.41
Excess of Assets:						
Surplus,	10,929,614.11	764,773.01	3,518,944.19	6,645,896.91		
	$21,864,018.08	$1,002,191.14	$5,733,924.22	$13,719,460.20	$1,368,608.11	$39,834.41

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CONSOLIDATED FUND STATEMENT.
(After Closing.)

CITY OF SPRINGFIELD, MASS.
November 30, 1916.

	Totals	FUNDS				
		General	Water	Capital	Sinking	Special and Trust
RESOURCES:						
Unapplied Cash,	$547,014.51	*$172,523.89*	$777.19	$553,205.79	$125,758.11	$39,797.31
Available Resources (Schedule A),	969,423.23	895,724.50	63,869.85	9,828.88		
Investments,	1,242,850.00				1,242,850.00	
Authorized Expenditures—Not Financed (Schedule D),	26,788.84			26,788.84		
Total Fund Resources,	$2,786,076.58	$723,200.61	$64,647.04	$589,823.51	$1,368,608.11	$39,797.31
APPROPRIATIONS AND RESERVES:						
Unencumbered Balances of Appropriations (Schedule E),	$472,106.90	$7,422.41		$464,684.49		
Premium on Bonds,	22,778.04	22,778.04				
Unappropriated Revenues,	18,621.27	18,621.27				
Reserves:						
For Encumbrances of Appropriations (Schedule E),	$111,358.89	$847.35		$110,511.54		
For Abatement of Taxes,	2,572.59	2,572.59				
For Abatement of Revenues Accrued,	18,249.31	8,101.08	$319.35	9,828.88		
For Extraordinary and Unforeseen Expenses,	1,923.09	1,923.09				
For Redemption of Public Debt,	1,368,608.11				$1,368,608.11	
For Re-Appropriation,	4,798.60			4,798.60		
For Special Funds,	40,097.31		300.00			$39,797.31
Total Reserves,	$1,547,607.90	$13,444.11	$619.35	$125,139.02	$1,368,608.11	$39,797.31
Total Appropriations and Reserves,	$2,061,114.11	$62,265.83	$619.35	$589,823.51	$1,368,608.11	$39,797.31
Surplus (Schedule F),	724,962.47	660,934.78	64,027.69			
	$2,786,076.58	$723,200.61	$64,647.04	$589,823.51	$1,368,608.11	$39,797.31

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REVENUES AND ACCOUNTS RECEIVABLE.
(Schedule A.)

CITY COLLECTOR IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

Account	DEBIT			CREDIT			DEBIT
	Uncollected Nov. 30, 1915	Committed during the year	Total	Payments to City Treasurer	Abatements, etc.	Total	Uncollected Nov. 30, 1916
GENERAL FUND.							
Miscellaneous Revenues:							
Charities Department—Care of Inmates at Almshouse,	$803.38	$7,814.60	$8,617.98	$5,453.80	$72.14	$5,525.94	$3,092.04
City Collector—Interest,	.....	23,145.47	23,145.47	23,145.47	.....	23,145.47	.....
Fees,	.....	8,100.14	8,100.14	8,100.14	.....	8,100.14	.....
Health Department—Care of Patients at Hospital,	13,987.78	20,321.31	34,309.09	12,824.47	6,053.21	18,877.68	15,431.41
Licenses:							
Building Department,	.....	266.00	266.00	266.00	.....	266.00	.....
Health Department,	.....	11.00	11.00	11.00	.....	11.00	.....
Mayor's Department,	1.00	8,942.50	8,943.50	8,923.50	20.00	8,943.50	.....
Police Department,	.....	6,123.00	6,123.00	6,123.00	.....	6,123.00	.....
Park Department—Charges for Services,	.....	51.00	51.00	51.00	.....	51.00	.....
Permits:							
Sewer Entrances,	160.00	39,929.62	40,089.62	39,516.10	154.54	39,670.64	418.98
Signs,	.....	50.00	50.00	46.00	.....	46.00	4.00
Street Obstructions,	.....	8,129.00	8,129.00	8,129.00	.....	8,129.00	.....
Street Opening,	95.35	499.45	594.80	560.55	1.50	562.05	32.75
Rents:							
Administration Building,	258.15	3,355.95	3,614.10	3,097.80	.....	3,097.80	516.30
Auditorium,	.....	165.00	165.00	115.00	.....	115.00	50.00
Equipment—Streets and Engineering,	62.94	628.06	691.00	633.40	41.00	674.40	16.60
Miscellaneous,	32.96	2,571.59	2,604.55	2,257.96	.....	2,257.96	346.59
Organ,	.....	10.00	10.00	.....	.....	.....	10.00
School Halls,	94.00	1,060.00	1,154.00	1,075.00	75.00	1,150.00	4.00
Schoolhouse Property,	208.00	2,702.00	2,910.00	2,607.60	110.00	2,717.60	192.40

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REVENUES AND ACCOUNTS RECEIVABLE.—Continued.
(Schedule A.)

CITY COLLECTOR IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

Account	DEBIT			CREDIT			DEBIT
	Uncollected Nov. 30, 1915	Committed during the year	Total	Payments to City Treasurer	Abatements, etc.	Total	Uncollected Nov. 30, 1916
GENERAL FUND.							
School Department:							
Moving Picture Fees,	.....	$369.65	$369.65	$308.50	.....	$308.50	$61.15
Tuition—Central High School,	$1,383.00	4,835.00	6,218.00	4,846.00	$50.00	4,896.00	1,322.00
Evening High School,	.....	676.12	676.12	676.12	.....	676.12	.....
Evening School of Trades,	.....	2,207.66	2,207.66	1,739.66	.....	1,739.66	468.00
Evening School—Vocational,	.....	24.50	34.50	14.00	.....	14.00	20.50
Graded Schools,	108.00	1,297.09	1,405.09	1,136.46	254.63	1,391.09	14.00
High School of Commerce,	2,226.50	7,220.00	9,446.50	6,135.00	110.00	6,245.00	3,201.50
Technical High School,	3,529.50	11,445.00	14,974.50	11,025.00	320.00	11,345.00	3,629.50
Vocational School,	1,030.00	3,127.50	4,157.50	3,130.00	437.50	3,567.50	590.00
Streets and Engineering, Department of:							
Bridges,	.....	1,513.52	1,513.52	1,376.47	137.05	1,513.52	.....
Engineering Services,	5.32	4.65	9.97	9.97	.....	9.97	.....
Street Sprinkling—Street Railway Co.,	.....	5,030.40	5,030.40	2,500.00	.....	2,500.00	2,530.40
Miscellaneous Sales:							
Charities Department,	47.50	3,716.16	3,763.66	3,711.91	.....	3,711.91	51.75
City Property:							
Municipal Group,	.....	25.00	25.00	25.00	.....	25.00	.....
Rifle Range,	.....	15.00	15.00	15.00	.....	15.00	.....
Schools,	45.00	28.72	73.72	68.72	.....	68.72	5.00
Fire Department,	.....	175.00	175.00	175.00	.....	175.00	.....
Health Department,	3.75	.....	3.75	3.75	.....	3.75	.....
Police Department,	.....	1,163.00	1,163.00	1,163.00	.....	1,163.00	.....
School Department,	.....	693.91	693.91	293.04	.....	293.04	400.87
School Department—Vocational School,	.....	885.28	885.28	885.28	.....	885.28	.....
Streets and Engineering, Department of,	1,314.17	2,814.65	4,128.82	3,330.35	533.47	3,863.82	265.00

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REVENUES AND ACCOUNTS RECEIVABLE.—Continued.
(Schedule A.)

CITY COLLECTOR IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

Account	DEBIT			CREDIT			DEBIT
	Uncollected Nov. 30, 1915	Committed during the year	Total	Payments to City Treasurer	Abatements, etc.	Total	Uncollected Nov. 30, 1916
GENERAL FUND.							
Recovered Expenditures:							
Charities Department,	$1,610.98	$25,582.16	$27,193.14	$14,741.89	$842.10	$15,583.99	$11,609.15
City Property—Schools,	.....	27.59	27.59	27.59	.....	27.59	.....
Fire Department,	.....	36.90	36.90	27.90	.....	27.90	9.00
Health Department,	7.50	28.50	36.00	24.00	.....	24.00	12.00
Streets and Engineering, Department of:							
Bridges,	.....	1,215.15	1,215.15	1,119.77	3.92	1,123.69	91.46
Forestry,	.....	360.38	360.38	244.23	46.48	290.71	69.67
Highways,	5,442.90	17,559.58	23,002.48	16,952.07	341.43	17,293.50	5,708.98
Plainfield Street Bridge,	.....	12,000.00	12,000.00	12,000.00	.....	12,000.00	.....
Repair Shop,	.....	81.58	81.58	53.99	.....	53.99	27.59
Sewers,	352.01	2,282.74	2,634.75	2,249.63	.....	2,249.63	385.12
Sidewalks and Curbing,	.....	3,398.97	3,398.97	2,711.41	67.03	2,778.44	620.53
Street Cleaning,	.....	560.49	560.49	560.49	.....	560.49	.....
Street Oiling,	.....	1,741.78	1,741.78	851.28	7.50	858.78	883.00
Special Assessments:							
Betterments,	.....	19,558.68	19,558.68	7,303.38	2,112.76	9,416.14	10,142.54
Sidewalks and Curbing,	3,742.59	45,367.01	49,109.60	38,147.33	607.68	38,755.01	10,354.59
Street Watering—1915,	7,404.00	.....	7,404.00	7,396.62	7.38	7,404.00	.....
Street Watering—1916,	.....	36,776.17	36,776.17	28,048.02	305.72	28,353.74	8,422.43
Taxes—1913,	125.29	.....	125.29	.....	125.29	125.29	.....
Taxes—1914,	2,074.09	.....	2,074.09	1,394.77	679.32	2,074.09	.....
Taxes—1915,	754,660.49	15,629.42	770,289.91	758,764.25	10,748.57	769,512.82	777.09
Taxes—1916,	.....	3,680,052.68	3,680,052.68	2,848,047.49	72,932.65	2,920,980.14	759,072.54
Taxes—Paid Since Abatement,	.....	116.98	116.98	116.98	.....	116.98	.....
	$800,816.15	$4,043,530.21	$4,844,346.36	$3,906,288.11	$97,197.87	$4,003,485.98	$840,860.38

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REVENUES AND ACCOUNTS RECEIVABLE.—Concluded.
(Schedule A.)

CITY COLLECTOR IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

Account	DEBIT			CREDIT			DEBIT
	Uncollected Nov. 30, 1915	Committed during the year	Total	Payments to City Treasurer	Abatements, etc.	Total	Uncollected Nov. 30, 1916
WATER FUND.							
Water Department:							
Water Rates,	$15,654.28	$447,265.19	$462,919.47	$411,341.73	$1,117.79	$412,459.52	$50,459.95
Miscellaneous Sales,	7,126.61	59,326.41	66,453.02	52,788.29	254.83	53,043.12	13,409.90
	$22,780.89	$506,591.60	$529,372.49	$464,130.02	$1,372.62	$465,502.64	$63,869.85
CAPITAL FUND.							
Hillman Street Extension,	$30,276.10	.....	$30,276.10	$20 447.22	.....	$20,447.22	$9,828.88

CITY TREASURER IN ACCOUNT WITH THE CITY OF SPRINGFIELD, MASS.

GENERAL FUND.							
Miscellaneous Sales:							
City Treasurer,	.....	$95.00	$95.00	.....	.....	.....	$95.00
Building Department,	.....	.45	.45	.....	.....	.....	.45
Police Department,	.....	3.00	3.00	.....	.....	.....	3.00
Public Parks,	.....	2.00	2.00	.....	.....	.....	2.00
School Department,	.....	24.00	24.00	.....	.....	.....	24.00
Recovered Expenditures:							
Refunds:							
Charities Department,	.....	3.32	3.32	.....	.....	.....	3.32
Police Department,	.....	2.00	2.00	.....	.....	.....	2.00
Streets and Engineering,	.....	36,969.86	36,969.86	.....	.....	.....	36,969.86
Workmen's Compensation,	.....	86.70	86.70	.....	.....	.....	86.70
Taxes:							
Street Railway,	.....	13,734.60	13,734.60	.....	.....	.....	13,734.60
Corporation,	.....	3,943.19	3,943.19	.....	.....	.....	3,943.19
		$54,864.12	$54,864.12				$54,864.12

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PROPERTY.

(Schedule B.)

CAPITAL FUND.

BUILDING COMMISSIONER.			
Equipment.			
Office,.....		$76.18	
Automobile,.....		427.00	
			$503.18*
CHARITIES.			
Land.			
Almshouse Farm,.....		$75,000.00	
Buildings.			
Almshouse,.....		27,256.50	
Equipment.			
Operating,.....		1,570.93*	
			103,827.43
CITY AUDITOR.			
Equipment.			
Operating,.....			305.50*
CITY PROPERTY COMMITTEE.			
Equipment.			
Operating,.....			81.50*
CITY TREASURER.			
Equipment.			
Operating,.....			20.00*
FIRE DEPARTMENT.			
Land.			
Armory Street Station,.....	$2,000.00		
Chestnut Street Station,.....	22,500.00		
Margaret Street Station,.....	2,600.00		
Mill Street Station,.....	8,000.00		
Mill River Lane Station,.....	500.00		
North Street Station,.....	14,000.00		
North Main Street Station,.....	30,800.00		
Oak Street, I. O., Station,.....	2,000.00		
Oakland Street Station,.....	3,500.00		
Pine Street Station,.....	4,000.00		
Plainfield Street Station,.....	2,000.00		
Walnut Street Station,.....	7,100.00		
Winchester Park Station,.....	7,000.00		
		$106,000.00	
Buildings.			
Armory Street Station,.....	$16,000.00		
Boston Road Station,.....	200.00		
Chestnut Street Station,.....	14,500.00		
Court Street Fire Headquarters,.....	101,620.00		
Margaret Street Station,.....	22,500.00		
Mill Street Station,.....	16,500.00		
Mill River Lane Station,.....	2,000.00		
North Street Station,.....	58,000.00		
North Main Street Station,.....	20,000.00		
Oak St., I. O., Station,.....	16,000.00		
Forward,.....	$267,320.00	$106,000.00	$104,737.61

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Forward,	$267,220.00	$106,000.00	$104,737.61
Oakland Street Station,	11,000.00		
Pine Street Station,	35,000.00		
Plainfield Street Station,	10,500.00		
Walnut Street Station,	32,500.00		
Winchester Park Station,	50,000.00		
		406,220.00	
Equipment.			
Operating.			
Fire Alarm System,	$121,963.00		
Fire Fighting Equipment,	263,490.50		
Office,	261.86		
Furniture and Furnishings,	289.90		
Miscellaneous,	139.50		
		386,144.76	
			898,464.76
Health Department.			
Buildings.			
Hospital,		$209.68	
Equipment.			
Operating.			
Office,	$137.09		
Furniture and Furnishings,	347.81		
Miscellaneous,	249.44		
		734.34	
			944.02*
Law Department.			
Equipment.			
Operating.			
Office,		$119.74	
Library,		161.10	
			280.84*
Mayor's Department.			
Equipment.			
Automobile,			2,619.81*
Militia Rifle Range.			
Land.			
Robbins Road, Rifle Range,			1,000.00*
Municipal Heating Plant.			
Land, Power Station and Garage Building,		$46,670.00	
Buildings, Heating Plant,		31,000.00	
			77,670.00
Municipal Group.			
Land.			
Municipal Group, Court and Pynchon Streets,		$1,075,077.44	
Buildings.			
Municipal Group, Auditorium,	$390,500.00		
Tower,	142,200.00		
Court,	31,500.00		
Administration Building,	547,488.70		
Landscape Gardening,	9,600.00		
		1,121,288.70	
Forward,		$2,196,366.14	$1,085,717.04

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Forward,		$2,196,866.14	$1,085,717.04
Equipment.			
Operating.			
Electrical Fixtures, Auditorium,	$27,000.00		
Furniture and Fixtures, Auditorium,	43,200.00		
Heating, Lighting, Plumbing, etc., Auditorium,	62,800.00		
Electrical Fixtures, Tower,	5,500.00		
Miscellaneous, Tower,	32,200.00		
Electrical Fixtures, Court,	16,400.00		
Miscellaneous, Court,	2,200.00		
Electrical Fixtures, Administration Building,	20,300.00		
Miscellaneous, Administration Building,	80,297.37		
Furniture and Fixtures, Administration Building,	93,228.83		
		383,126.20	
			2,579,492.34
MISCELLANEOUS.			
Land.			
Occupied by Police and Fire Headquarters and Municipal Heating Plant,			189,400.00
POLICE.			
Land.			
Police Station, I. O.,		$300.00*	
Buildings.			
Police Headquarters,	$115,600.00		
Police Station, I. O.,	3,000.00		
		118,600.00	
Equipment.			
Operating.			
Furniture and Furnishings,	$270.00		
Miscellaneous,	396.25		
		666.25	
			119,566.25
PUBLIC PARKS.			
Land.			
Alvord Circle,	$1,000.00		
Armory Street Reservoir Park,	9,390.33		
Armory Street Triangle,	400.00		
Belmont Avenue,	2,000.00		
Belmont Triangle,	600.00		
Benton Lawn,	18,000.00		
Calhoun Square,	35,000.00		
Carew Triangle,	12,100.63		
Chapin Terrace,	3,000.00		
Clarendon Fountain,	500.00		
Concord Terrace,	1,000.00		
Cottage Hill Grove,	12,000.00		
Court Square and Extension,	1,400,400.00		
Crescent Terrace,	2,000.00		
Dartmouth Fountain,	1,000.00		
Dartmouth Terrace,	2,000.00		
Forward,	$1,500,390.96		$3,974,175.63

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Forward,	$1,500,390.96		$3,974,175.63
Dorchester Rest,	1,000.00		
Emerson Wight Playground,	40,000.00		
Emily Bill Playground,	40,000.00		
Florentine Gardens,	2,000.00		
Forest Park,	1,428,000.00		
Garfield Triangle,	1,300.00		
Gerrish Park,	8,000.00		
Grenada Terrace,	2,000.00		
Gunn Square,	5,000.00		
Kenwood Terrace,	2,000.00		
Kibbe Fountain,	1,200.00		
Lafayette Rest,	1,000.00		
Liberty Street Triangle,	3,000.00		
Magnolia Terrace,	5,000.00		
Maple Street Triangle,	500.00		
Maplewood Terrace,	5,000.00		
Marengo Park,	4,000.00		
Massachusetts Terrace,	1,500.00		
McKnight Glen,	5,000.00		
McKnight Triangle,	3,000.00		
Merrick Terrace,	100,000.00		
Mill River Rest,	1,000.00		
Mill Street Fountain,	800.00		
Oak Grove Park,	1,000.00		
Sargeant's Rest,	15,000.00		
Smith Triangle,	5,000.00		
Springfield Street Triangle,	1,000.00		
Stearns Square,	200,000.00		
Sumner Avenue,	7,000.00		
Tapley Playground,	7,000.00		
The Levee,	16,300.00		
Thompson Triangle,	7,000.00		
Trinity Terrace,	2,500.00		
Van Horn Reservoir Park,	31,177.45		
Watersbops Triangle,	1,000.00		
Westford Circle,	2,000.00		
West Street Playground,	15,000.00		
West Street Triangle,	500.00		
Winchester Square,	25,000.00		
		$3,497,168.41	
Buildings.			
Emerson Wight,	$950.00		
Emily Bill,	1,200.00		
Greenhouses,	4,000.00		
Menagerie,	20,000.00		
Middle Pavilion,	4,500.00		
Restaurant,	4,000.00		
Pheasantry, etc.,	1,500.00		
Sheds,	3,500.00		
Shelters,	1,000.00		
Shops,	3,500.00		
Stables,	12,500.00		
Forward,	$56,650.00	$3,497,168.41	$3,974,175.63

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Forward,	$56,650.00	$3,497,168.41	$3,974,175.68
Sumner Avenue Pavilion,	3,500.00		
Myrtle Street Playground,	350.00		
Van Horn,	4,000.00		
West Street Playground,	250.00		
Bath Houses, Watershops Pond,	500.00		
Bath Houses, Loon Pond,	300.00		
		65,550.00	
Equipment.			
Operating.			
Miscellaneous,		4,051.20*	
			3,566,769.61
PUBLIC SANITARY.			
Buildings.			
Public Sanitary,			24,000.00
REGISTRARS OF VOTERS.			
Equipment.			
Operating.			
Miscellaneous,			807.51*
SCHOOLS.			
Land.			
Acushnet Avenue,	$16,000.00		
Alden Street,	3,800.00		
Armory Street,	8,500.00		
Barrows,	18,700.00		
Boston Road,	1,500.00		
Brightwood,	6,500.00		
Buckingham,	45,000.00		
Carew Street,	18,000.00		
Carlisle,	3,000.00		
Central High,	172,800.00		
Central Street,	20,000.00		
Charles Street,	4,000.00		
Chestnut Street,	41,000.00		
Dry Bridge,	1,000.00		
Eastern Avenue,	5,400.00		
East Union,	5,000.00		
Emery Street Shop and Storehouse,	7,000.00		
Five Mile Pond,	500.00		
Forest Park,	30,000.00		
Glenwood,	2,500.00		
High School of Commerce,	174,200.00		
Homer Street,	12,000.00		
Hooker,	178,100.00		
Howard Street,	38,600.00		
Grammar, I. O.,	6,500.00		
Primary, I. O.,	3,000.00		
Jefferson Avenue,	7,500.00		
Kensington Avenue,	10,500.00		
Lincoln,	24,000.00		
School Street,	35,500.00		
Forward,	$900,100.00		$7,565,752.75

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Forward,	$900,100.00		$7,565,752.75
Sixteen Acres,	500.00		
State Street,	69,000.00		
Strickland,	5,000.00		
Sumner Avenue,	49,000.00		
Tapley,	22,000.00		
Technical High,	97,992.68		
Vernon Street Office Building,	42,900.00		
Vocational,	79,800.00		
Wachogue,	200.00		
White Street,	14,000.00		
William Street,	14,000.00		
Worthington Street,	12,000.00		
		$1,305,492.68	
Buildings.			
Acushnet Avenue,	$45,467.38		
Alden Street,	14,357.48		
Armory Street,	145,600.04		
Barrows,	44,636.36		
Boston Road,	7,273.30		
Brightwood,	60,866.71		
Buckingham,	160,567.57		
Carew Street,	46,103.05		
Carlisle,	200.00		
Central High,	350,557.59		
Central Street,	77,020.79		
374 Central Street,	1,081.29		
Charles Street,	14,307.84		
Chestnut Street,	254,328.22		
Dry Bridge,	2,981.75		
Eastern Avenue,	30,461.42		
East Union,	24,438.08		
Emery Street Shop and Storehouse,	23,525.00		
Five Mile Pond,	2,000.00		
Forest Park,	93,020.46		
Glenwood,	16,548.45		
High School of Commerce,	735,905.62		
Homer Street,	36,338.47		
Hooker,	30,384.36		
Howard Street,	99,895.84		
Grammar, I. O.,	185,925.87		
Primary, I. O.,	12,385.30		
Jefferson Avenue,	41,197.10		
Kensington Avenue,	98,353.63		
Lincoln,	89,197.66		
Rushville Portable,	3,482.34		
School Street,	20,222.77		
Sixteen Acres,	2,587.17		
State Street,	78,188.78		
Strickland,	20,239.79		
Sumner Avenue,	59,902.12		
Tapley,	70,585.16		
Technical High,	280,366.17		
Forward,	$3,331,000.93	$1,305,492.68	$7,565,752.75

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Forward,	$3,331,000.93	$1,305,492.68	$7,565,752.75
Vernon Street Office Building,	3,155.53		
Vocational,	43,864.23		
Wachogue,	300.00		
Worthington Street Portable,	3,546.96		
White Street,	49,915.48		
William Street,	58,377.31		
Worthington Street,	56,640.55		
		3,547,300.99	
Equipment.			
Operating.			
Furniture and Fixtures,	$165,467.13		
Miscellaneous,	8,595.55		
		174,062.68	
			5,027,856.35
STREETS AND ENGINEERING.			
Land.			
Abbe Avenue Crossing,	$10,400.00		
67 Arch Street,	1,000.00		
Birnie Avenue Extension,	1,000.00		
Gravel Bank, Boston Road,	200.00		
Carew Street,	300.00		
Carew Street, between Baltimore and Fleetwood Streets,	600.00		
Emery Street,	20,876.00		
Fulton Street,	17,097.00		
Gravel Bank, Five Mile Pond,	4,500.00		
Gravel Bank, Island Pond,	300.00		
Locust Street,	2,070.00		
Logan Street Yard,	10,800.00		
Page Boulevard,	400.00		
East Side Pecousic Avenue,	19,000.00		
South End Yard,	11,000.00		
Between Pecousic and South Streets,	5,000.00		
Ashes and Garbage Station, State Street,	12,000.00		
Summer Street Yard,	153,000.00		
Trap Rock Quarry, Westfield,	1,000.00		
West Street Dump,	10,000.00		
		$280,543.00	
Buildings.			
Arch Street,	$2,000.00		
Emery Street,	25,000.00		
Incinerator, Logan Street,	17,000.00		
South End Yard, East Side Pecousic Ave.,	3,800.00		
South End Yard, West Side Pecousic Ave.,	20,000.00		
Ashes and Garbage Station, State Street,	1,200.00		
State Street Storehouse,	2,600.00		
Summer Street Yard,	30,100.00		
Trap Rock Bins and Trestle, Summer Street Yard,	10,000.00		
Incinerator, West Street,	7,000.00		
		118,700.00	
Forward,		$399,243.00	$12,593,609.10

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Forward,		$399,243.00	$12,593,609.10
Equipment.			
Operating.			
Asphalt Plant,	$7,118.00		
Automobiles,	4,270.00		
Blacksmith Shop,	1,295.00		
Carpenter Shop,	1,125.90		
Engineering Division,	2,719.78		
Forestry Division,	2,233.90		
Garage,	170.00		
Harness and Fittings,	1,065.30		
Highway and Road Machinery,	8,969.25		
Horses,	12,290.00		
Laboratory,	621.31		
Machine Shop,	191.80		
Motorcycles,	500.00		
Motor Trucks,	19,176.81		
Office Equipment,	1,835.50		
Patterns,	278.00		
Sewer Division,	404.00		
Sleighs and Sleds,	1,278.65		
Small Tools,	12,156.99		
Stables and Yards,	3,038.10		
Steam Rollers,	21,825.00		
Street Cleaning Division,	1,578.80		
Street Lighting Division,	1,189.00		
Wagons and Carts,	8,231.25		
Water Carts,	1,655.80		
		115,218.14	
			514,461.14
Sealer of Weights and Measures.			
Equipment.			
Operating.			
Miscellaneous,			20.88*
Total,			$13,108,091.12

Water Fund.

Water Department.		
Ludlow Water System,	$2,727,457.45	
Little River Water System,	1,988,717.57	
Original Water System, Van Horn, and Other	386,226.36	
Water Power Rights, Little River System,	140,000.00	
Lands in Blandford, Mass.,	2,700.00	
Addition to Plant and Equipment,	334,135.54	
		5,579,236.92
		$18,687,328.04

* Inventory Incomplete.

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PROPERTY ADDITIONS.

Year Ended November 30, 1916.

GENERAL FUND.

DEPARTMENT.		
Building Commissioner:		
Office Equipment,	$76.18	
Automobile Equipment,	427.00	
		$503.18
Charities:		
Property Improvement,	$256.50	
Office Equipment,	89.10	
Furniture and Furnishings,	273.01	
Miscellaneous Equipment,	1,208.82	
		1,827.43
City Auditor:		
Office Equipment,		305.50
City Property Committee:		
Office Equipment,	$81.50	
Schoolhouses—Property Improvement,	19,493.83	
Schoolhouses—Fire Prevention on,	32,142.21	
Schoolhouses—Furniture,	4,384.84	
Schoolhouses—Miscellaneous Equipment,	934.09	
		57,036.47
City Treasurer:		
Office Equipment,		20.00
Damages—Land,		5,540.46
Fire:		
Property Improvement,	$120.00	
Office Equipment,	261.86	
Furniture and Furnishings,	289.90	
Fire Fighting Apparatus,	39,240.50	
Fire Alarm Equipment,	1,963.00	
Miscellaneous Equipment,	139.50	
		42,014.76
Forward,		$107,247.80

DEPARTMENT.		
Forward,		$107,247.80
Garbage Disposal,		3,310.00
Health:		
Property Improvement,	$209.68	
Office Equipment,	187.09	
Furniture and Furnishings,	347.81	
Miscellaneous Equipment,	249.44	
		944.02
Law:		
Office Equipment,	$119.74	
Library Equipment,	161.10	
		280.84
Mayor:		
Automobile Equipment,		119.81
Municipal Automobile,		2,500.00
Municipal Group Buildings:		
Property Improvement,	$388.70	
Furniture and Furnishings,	428.83	
Miscellaneous Equipment,	297.37	
		1,114.90
Municipal Heating Plant:		
Property Improvement,		670.00
Plainfield Street Bridge:		
Property Improvement,		13,070.66
Police:		
Furniture and Furnishings,	$270.00	
Gymnasium Equipment,	6.25	
Miscellaneous Equipment,	390.00	
		666.25
Forward,		$129,924.28

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PROPERTY ADDITIONS.—Continued.

Year Ended November 30, 1916.

GENERAL FUND.

DEPARTMENT.		
Forward,		$129,924.28
Public Parks:		
Property Improvement,	$1,609.99	
Office Equipment,	8.05	
Horses,	250.00	
Steam Roller,	3,074.12	
Property Improvement—Van Horn,	1,177.45	
Horses—Van Horn,	600.00	
		6,719.61
Registrars of Voters:		
Property Improvement,	$385.41	
Miscellaneous Equipment,	807.51	
		1,192.92
Schools:		
Furniture and Furnishings,	$368.32	
Miscellaneous Equipment,	7,661.46	
		8,029.78
Schoolhouse Purposes, Land for,		13,500.00
Streets and Engineering:		
Property Improvement,	$24,203.28	
Asphalt Plant,	7,118.00	
Automobiles,	4,270.00	
Blacksmith Shop,	1,295.00	
Carpenter Shop,	1,125.00	
Engineering Division,	2,719.78	
Forestry Division,	2,233.90	
Garage,	170.00	
Forward,	$43,134.96	$159,366.59

DEPARTMENT.		
Forward,	$43,134.96	$159,366.59
Streets and Engineering.—Continued:		
Harness and Fittings,	1,065.30	
Highway and Road Machinery,	8,969.25	
Horses,	12,290.00	
Laboratory,	621.31	
Machine Shop,	191.80	
Motorcycles,	500.00	
Motor Trucks,	19,176.81	
Office Equipment,	1,835.50	
Patterns,	278.00	
Sewer Division,	404.00	
Sleighs and Sleds,	1,278.65	
Small Tools,	12,156.99	
Stables and Yards,	3,038.10	
Steam Rollers,	21,825.00	
Street Cleaning Division,	1,578.80	
Street Lighting Division,	1,189.00	
Wagons and Carts,	8,231.25	
Water Carts,	1,655.80	
	$139,421.42	
Less Inventory of December 1, 1915,	92,927.77	
		46,493.65
Weights and Measures, Sealer of:		
Miscellaneous Equipment,		20.88
Winchester Park Fire Station Remodeling		2,000.00
Total Additions during Year,		$207,881.12

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BONDED DEBT—SUMMARY.

(Schedule C.)

	November 30		November 30, 1916	
	1916	1915	Increase	Decrease
"City" Debt within statutory limit:				
Sinking Fund Bonds,	$1,730,000.00	$1,730,000.00		
Deduct Investments,	1,235,888.62	1,136,440.05	$99,448.57	
	$494,111.38	$593,559.95		$99,448.57
Serial Bonds,	3,239,400.00	2,913,600.00	325,800.00	
	$3,733,511.38	$3,507,159.95	226,351.43	
"City" Debt outside statutory limit:				
Serial Bonds,	2,046,000.00	2,116,000.00		70,000.00
Net "City" Debt,	$5,779,511.38	$5,623,159.95	156,351.43	
Water Department Debt:				
Sinking Fund Bonds,	$275,000.00	$275,000.00		
Deduct Investments,	132,719.49	109,949.33	22,770.16	
	$142,280.51	$165,050.67		22,770.16
Serial Bonds,	1,932,000.00	1,916,000.00	16,000.00	
Net "Water" Debt,	$2,074,280.51	$2,081,050.67		6,770.16
Total Net Debt,	$7,853,791.89	$7,704,210.62	149,581.27	

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BONDED DEBT SERIALS, NOVEMBER 30, 1916.

	Issued	Coupon or Reg	Rate	Original Issue	Paid	Outstanding	Payable
Within Statutory Limit.							
School,	1897	Reg.	4	$300,000	$300,000	$0,000	July
School,	1898	Reg.	3½	50,000	50,000	0,000	July
School,	1898	Reg.	3½	50,000	50,000	0,000	July
Sewer,	1901	Reg.	3½	50,000	10,000	10,000	September
Sewer,	1904	Reg.	3½	50,000	10,000	10,000	August
City Hall,	1907	Reg.	4	100,000	20,000	80,000	July
School, Kensington Avenue,	1908	Reg.	4	100,000	20,000	80,000	October
Sewer,	1908	Reg.	4	50,000	10,000	40,000	October
Water Street Extension and Rifle Range,	1908	Reg.	4	50,000	10,000	40,000	October
North Street Extension,	1909	Reg.	4	200,000	40,000	160,000	October
School, Lincoln,	1909	Reg.	4	100,000	20,000	80,000	October
Fire and Police Buildings,	1910	Reg.	4	200,000	40,000	160,000	October
Locust Street Extension,	1911	Reg.	4	50,000	10,000	40,000	October
Public Buildings,	1911	Reg.	4	250,000	50,000	200,000	October
Municipal,	1913	Reg.	4½	50,000	10,000	40,000	[illegible]
High School of Commerce,	1913	Comp.	4	500,000	70,000	430,000	[illegible]
School, Buckingham,	1913	Reg.	4½	250,000	100,000	150,000	[illegible]
School,	1913	Reg.	4½	40,000	8,000	32,000	[illegible]
Sewer,	1913	Reg.	4	50,000	8,000	42,000	[illegible]
High School of Commerce,	1914	Comp.	4½	100,000	10,000	90,000	[illegible]
Fulton Street Widening,	1914	Comp.	4½	100,000	10,000	90,000	[illegible]
School and Fire,	1914	Reg.	4½	250,000	50,000	200,000	[illegible]
High School of Commerce,	1915	Comp.	4	500,000	50,000	450,000	[illegible]
Dwight-Willow and Hillman Streets Extension,	1915	Reg.	4	60,000	6,000	54,000	[illegible]
School,	1916	Reg.	4	840,000		840,000	[illegible]
				$4,311,000	$1,014,000	$3,300,000	
Outside Statutory Limit.							
River Front,	1908	Reg.	4	$50,000	$10,000	$40,000	[illegible]
Municipal Buildings,	1909	C. R.	3½	600,000	100,000	500,000	[illegible]
Municipal Buildings,	1910	C. R.	4	400,000	60,000	340,000	[illegible]
Municipal Buildings,	1913	C. R.	4	800,000	80,000	720,000	[illegible]
Dwight and Water Streets Railroad Underpasses,	1913	Comp.	4	400,000	40,000	360,000	[illegible]
Municipal Buildings,	1914	C. R.	4	200,000	10,000	190,000	[illegible]
Dwight and Water Streets Railroad Underpasses,	1915	Comp.	4	200,000	10,000	190,000	[illegible]
				$2,650,000	$310,000	$2,340,000	
Water Debt.							
Little River,	1907	C. R.	4	$270,000	$70,000	$200,000	[illegible]
Little River,	1908	C. R.	4	270,000	60,000	210,000	[illegible]
Little River,	1909	C. R.	4	1,000,000	200,000	800,000	[illegible]
Little River,	1910	C. R.	3½	275,000	50,000	225,000	[illegible]
Little River,	1913	C. R.	4½	250,000	50,000	200,000	[illegible]
Little River,	1916	C. R.	4½	100,000		100,000	[illegible]
				$2,165,000	$430,000	$1,735,000	
Total without Sinking Funds,				$9,126,000	$1,754,000	$7,372,000	

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BONDED DEBT WITH SINKING FUNDS, NOVEMBER 30, 1916.

	Dated	Years	Rate	Coupon or Reg.	Due	Amount	Sinking Funds
School,	Jan., 1897	20	4	Reg.	Jan., 1917	$370,000	$365,703.38
School,	Dec., 1899	20	3½	Reg.	Dec., 1919	20,000	120,090.25
School,	June, 1900	20	3	C. R.	June, 1920	125,000	
Sewer,	June, 1900	30	3	C. R.	June, 1930	142,000	70,074.93
Schools,	Sept., 1901	20	3½	Reg.	Sept., 1921	125,000	98,271.52
Schools,	Oct., 1902	20	3½	Reg.	Oct., 1922	55,000	38,539.67
Public Parks,	June, 1903	20	3½	Reg.	June, 1923	125,000	88,543.15
School,	Sept., 1903	20	3½	C. R.	Sept., 1923	40,000	27,283.14
School,	Jan., 1905	20	3½	Reg.	Jan., 1925	396,000	217,718.68
School,	Nov., 1906	20	4	C. R.	Nov., 1926	207,000	88,592.30
Street, School, and Sewer,	Nov., 1907	10	4	Reg.	Nov., 1917	125,000	121,121.60
						$1,730,000	$1,235,888.62
Water,	Oct., 1890	30	3½	Coup.	Oct., 1920	$125,000	$182,719.49
Water,	Oct., 1893	30	4	Coup.	Oct., 1923	150,000	
						$275,000	$182,719.49
Total with Sinking Funds,						$2,005,000	$1,368,608.11

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SINKING FUNDS, NOVEMBER 1916 1915.

Loan	Cash		Bonds, City of Springfield		Bonds, Municipal		Bonds, Railroad	
	1916	1915	1916	1915	1916	1915	1916	1915
High School,	$159,103.38	$17,420.69	$104,000	$162,000	$69,600	$105,650	$10,000	$29,000
School, 1900,	10,840.25	8,266.75	66,500	57,500	28,250	28,250	19,000	19,000
School, 1901,	8,271.52	5,761.05	55,000	41,000	25,000	21,000	10,000	10,000
School, 1902,	1,089.67	5,777.09	26,500	14,500	6,000	6,000	5,000	5,000
School, 1903,	4,733.14	2,205.63	13,500	15,500	4,000	4,000	3,000	3,000
School, 1905,	16,718.68	17,861.29	146,000	144,000	36,000	16,000	19,000	19,000
School, 1906,	5,592.30	8,738.88	61,000	54,000	6,000	6,000	16,000	10,000
Sewer, 1900,	4,774.93	5,426.43	36,000	36,000	16,000	16,000	3,000	2,000
Public Parks, 1903,	12,843.15	8,306.81	39,000	48,000	9,000	9,000	19,000	13,000
Streets, Schools, and Sewers, 1907,	13,121.60	12,075.43	54,000	41,000	48,000	30,000	11,000	11,000
	$237,088.62	$91,840.05	$601,500	$608,500	$287,850	$286,900	$120,000	$120,000
Water,	4,719.49	949.33	59,000	50,000	48,000	33,000	26,000	26,000
	$241,758.11	$92,289.38	$660,500	$658,500	$280,850	$269,900	$146,000	$146,000

Loan	Bonds, Street Railway		Mortgages		Totals		1916
	1916	1915	1916	1915	1916	1915	Increase or Decrease
High School,	$23,000	$35,000			$365,703.38	$349,070.69	$16,632.69
School, 1900,	500	500		$2,500	120,090.25	110,816.75	9,273.50
School, 1901,				12,000	98,271.52	89,761.05	8,510.47
School, 1902,				3,000	38,589.67	35,177.09	3,362.58
School, 1903,	2,000				27,233.14	24,705.63	2,527.51
School, 1905,					217,718.68	196,861.29	21,857.39
School, 1906,					88,592.30	79,738.88	9,853.42
Sewer, 1900,	5,300	5,300			70,074.93	64,726.43	5,348.50
Public Parks, 1903,	8,700	8,700			88,543.15	81,006.81	7,536.34
Street, Schools, and Sewers, 1907,				12,000	121,121.60	106,075.43	15,046.17
	$39,500	$49,500		$30,200	$1,235,888.62	$1,136,440.05	$99,448.57
Water,					132,719.49	109,949.33	22,770.16
	$39,500	$49,500		$30,200	$1,368,608.11	$1,246,389.38	$122,218.73

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BONDED DEBT MATURITIES.						Totals	
Due	"City" Serial Within Limit	"City" Serial Outside Limit	"City" with Sinking Funds	"Water" with Sinking Funds	"Water" Serial	With Sinking Funds	Without Sinking Funds
1917	$236,200	$70,000	$495,000		$89,000	$495,000	$395,200
1918	232,700	69,000			89,000		390,700
1919	217,000	67,000	20,000		89,000	20,000	373,000
1920	198,000	67,000	125,000	$125,000	89,000	250,000	354,000
1921	197,000	67,000	125,000		89,000	125,000	353,000
1922	196,000	67,000	55,000		89,000	55,000	352,000
1923	195,000	67,000	165,000	150,000	89,000	315,000	351,000
1924	191,000	66,000			89,000		346,000
1925	186,000	66,000	396,000		89,000	396,000	341,000
1926	179,000	66,000	207,000		89,000	207,000	334,000
1927	177,000	66,000			89,000		332,000
1928	169,000	66,000			89,000		324,000
1929	161,000	66,000			89,000		316,000
1930	156,000	66,000	142,000		89,000	142,000	311,000
1931	139,000	66,000			89,000		294,000
1932	123,000	66,000			89,000		278,000
1933	122,500	66,000			89,000		277,500
1934	85,000	66,000			89,000		240,000
1935	46,000	66,000			89,000		201,000
1936	29,000	56,000			89,000		174,000
1937	2,000	56,000			74,000		132,000
1938	2,000	56,000			64,000		122,000
1939		56,000			14,000		70,000
1940		56,000					56,000
1941		56,000					56,000
1942		56,000					56,000
1943		56,000					56,000
1944		43,000					43,000
1945		43,000					43,000
1946		43,000					43,000
1947		43,000					43,000
1948		43,000					43,000
1949		43,000					43,000
1950		28,000					28,000
1951		18,000					18,000
1952		18,000					18,000
1953		5,000					5,000
1954		5,000					5,000
Outstanding	$3,239,400	$2,046,000	$1,730,000	$275,000	$1,932,000	$2,005,000	$7,217,400
Paid	1,074,600	299,000			416,000		1,789,600
Original Issue	$4,314,000	$2,845,000	$1,730,000	$275,000	$2,348,000	$2,005,000	$9,007,000

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SINKING FUNDS, NOVEMBER 1916–1915.

Loan	Cash		Bonds, City of Springfield		Bonds, Municipal		Bonds, Railroad	
	1916	1915	1916	1915	1916	1915	1916	1915
High School,	$159,103.38	$17,420.69	$104,000	$162,000	$69,600	$105,650	$10,000	$29,000
School, 1900,	10,840.25	8,266.75	66,500	57,500	23,250	23,250	19,000	19,000
School, 1901,	8,271.52	5,761.05	55,000	41,000	25,000	21,000	10,000	10,000
School, 1902,	1,039.67	5,777.09	26,500	14,500	6,000	6,000	5,000	5,000
School, 1903,	4,783.14	2,205.63	13,500	15,500	4,000	4,000	3,000	3,000
School, 1905,	16,718.68	17,361.29	146,000	144,000	36,000	16,000	19,000	19,000
School, 1906,	5,592.30	8,738.88	61,000	54,000	6,000	6,000	16,000	10,000
Sewer, 1900,	4,774.93	5,426.43	36,000	36,000	16,000	16,000	8,000	2,000
Public Parks, 1903,	12,843.15	8,306.81	39,000	43,000	9,000	9,000	19,000	12,000
Streets, Schools, and Sewers, 1907,	18,121.60	12,075.43	54,000	41,000	43,000	30,000	11,000	11,000
	$237,038.62	$91,340.05	$601,500	$608,500	$237,850	$236,900	$120,000	$120,000
Water,	4,719.49	949.33	59,000	50,000	43,000	33,000	26,000	26,000
	$241,758.11	$92,289.38	$660,500	$658,500	$280,850	$269,900	$146,000	$146,000

	Bonds, Street Railway		Mortgages		Totals		1916
	1916	1915	1916	1915	1916	1915	Increase or Decrease
High School,	$23,000	$35,000	.....	.....	$365,703.38	$349,070.69	$16,632.69
School, 1900,	500	500	.....	$2,300	120,090.25	110,816.75	9,273.50
School, 1901,	.....	.....	.....	12,000	98,271.52	89,761.05	8,510.47
School, 1902,	.....	.....	.....	3,900	38,539.67	35,177.09	3,362.58
School, 1903,	2,000	.....	.....	.....	27,233.14	24,705.63	2,527.51
School, 1905,	.....	.....	.....	.....	217,718.68	196,361.29	21,357.39
School, 1906,	.....	.....	.....	.....	88,592.30	78,738.88	9,853.42
Sewer, 1900,	5,300	5,300	.....	.....	70,074.93	64,726.43	5,348.50
Public Parks, 1903,	8,700	8,700	.....	.....	88,543.15	81,006.81	7,536.34
Street, Schools, and Sewers, 1907,	.....	.....	.....	12,000	121,121.60	106,075.43	15,046.17
	$39,500	$49,500	.....	$30,200	$1,235,888.62	$1,136,440.05	$99,448.57
Water,	.....	.....	.....	.....	132,719.49	109,949.33	22,770.16
	$39,500	$49,500	.....	$30,200	$1,368,608.11	$1,246,389.38	$122,218.73

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BONDED DEBT MATURITIES.						Totals	
Due	"City" Serial Within Limit	"City" Serial Outside Limit	"City" with Sinking Funds	"Water" with Sinking Funds	"Water" Serial	With Sinking Funds	Without Sinking Funds
1917	$236,200	$70,000	$495,000		$89,000	$495,000	$895,200
1918	232,700	69,000			89,000		390,700
1919	217,000	67,000	20,000		89,000	20,000	373,000
1920	198,000	67,000	125,000	$125,000	89,000	250,000	354,000
1921	197,000	67,000	125,000		89,000	125,000	353,000
1922	196,000	67,000	55,000		89,000	55,000	352,000
1923	195,000	67,000	165,000	150,000	89,000	315,000	351,000
1924	191,000	66,000			89,000		346,000
1925	186,000	66,000	396,000		89,000	396,000	341,000
1926	179,000	66,000	207,000		89,000	207,000	334,000
1927	177,000	66,000			89,000		332,000
1928	169,000	66,000			89,000		324,000
1929	161,000	66,000			89,000		316,000
1930	156,000	66,000	142,000		89,000	142,000	311,000
1931	139,000	66,000			89,000		294,000
1932	123,000	66,000			89,000		278,000
1933	122,500	66,000			89,000		277,500
1934	85,000	66,000			89,000		240,000
1935	46,000	66,000			89,000		201,000
1936	29,000	56,000			89,000		174,000
1937	2,000	56,000			74,000		132,000
1938	2,000	56,000			64,000		122,000
1939		56,000			14,000		70,000
1940		56,000					56,000
1941		56,000					56,000
1942		56,000					56,000
1943		56,000					56,000
1944		43,000					43,000
1945		43,000					43,000
1946		43,000					43,000
1947		43,000					43,000
1948		43,000					43,000
1949		43,000					43,000
1950		28,000					28,000
1951		18,000					18,000
1952		18,000					18,000
1953		5,000					5,000
1954		5,000					5,000
Outstanding	$3,239,400	$2,046,000	$1,730,000	$275,000	$1,932,000	$2,005,000	$7,217,400
Paid	1,074,600	299,000			416,000		1,789,600
Original Issue	$4,314,000	$2,345,000	$1,730,000	$275,000	$2,348,000	$2,005,000	$9,007,000

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AUTHORIZED EXPENDITURES NOT FINANCED.

November 30, 1916.

(Schedule D.)

Hillman Street Extension,	$7,802.78
Water Street Widening,	4,100.00
Municipal Group, Additional Land,	886.06
Land for Schoolhouse Purposes, Boston Road,	4,000.00
Land for Schoolhouse Purposes, Washington Street,	10,000.00
	$26,788.84

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SCHEDULE OF APPROPRIATIONS AS OF NOVEMBER 30, 1916.

GENERAL FUND.

(Schedule E.)

Department	Original	As Modified to Date	Charges During Year	Reserved for Encumbrances	Unencumbered Balances
Assessors,	$19,617.00	$19,617.00	$19,614.38		$2.62
Building Commissioner,	20,231.00	20,231.00	19,803.57		427.43
Celebrations,		2,300.00	2,300.00		
Charities,	91,750.50	94,515.76	93,694.93		820.83
City Auditor,	8,966.66	9,266.66	9,099.13		167.53
City Clerk,	11,268.35	11,268.35	10,568.31		700.04
City Collector,	16,932.96	17,257.96	17,232.59		25.37
City Council,	1,230.00	1,930.00	1,865.86		64.14
City Planning Commission,	1,000.00	1,000.00	287.46		712.54
City Property Committee,	191,563.34	208,337.13	187,464.52		20,872.61
City Treasurer,	10,897.66	10,897.66	10,895.28		2.38
Damages—Land,	18,880.00	18,880.00	5,540.46		13,339.54
Damages—Persons and Property,	6,000.00	9,124.57	9,124.57		
Fire,	316,939.25	319,339.24	319,326.30		12.94
Fish Warden,	25.00	25.00	25.00		
Garbage Disposal—State Street,		4,034.37	3,651.99		382.38
Health Department,	66,605.17	66,605.17	63,443.37		3,161.80
Inventory, City Property Committee,	540.00	540.00	540.00		
Inventory, Schools,	5,000.00	5,000.00	5,000.00		
Law,	6,847.00	7,046.34	7,046.34		
License Commissioners,	500.00	500.00	454.60		45.40
Mayor,	6,765.00	7,276.50	7,276.50		
Militia Rifle Range,	1,095.00	1,786.00	1,658.81		127.19
Municipal Automobile,	2,500.00	2,500.00	2,500.00		
Municipal Debt,	828,334.75	828,337.63	820,876.92		7,460.71

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SCHEDULE OF APPROPRIATIONS AS OF NOVEMBER 30, 1916.

GENERAL FUND—Continued.

(Schedule E.)

Department	Original	As Modified to Date	Charges During Year	Reserved for Encumbrances	Unencumbered Balances
Municipal Group Buildings,	$40,038.17	$43,530.95	$43,530.95		
Municipal Heating Plant,	16,131.88	16,451.88	16,314.31		$137.57
Municipal Organ,	1,000.00	1,000.00	184.55		815.45
Pecousic Avenue,		2,477.04			2,477.04
Plainfield Street Bridge,	12,000.00	13,251.63	13,070.66		180.97
Police,	283,883.12	283,883.12	276,850.15		7,032.97
Printing Committee,	3,810.13	3,810.13	3,742.60		67.53
Public Library,	74,111.79	74,111.79	74,111.79		
Public Parks,	109,552.52	111,552.52	111,180.88		371.64
Public Works,	1,705.00	2,187.65	2,187.65		
Refunds,	55,000.00	55,000.00	52,164.48		2,835.52
Registrars of Voters,	16,075.00	18,820.90	18,820.90		
Reserve for Contingencies,	50,000.00	50,563.20	50,563.20		
Rubbish Disposal, West Street,		139.93			139.93
Schools,	816,679.44	816,879.44	802,607.84		14,271.60
Schoolhouse Purposes, Land for,		13,500.00	13,500.00		
Sinking Fund Commissioners,	425.00	425.00	425.00		
Smoke Inspector,	351.00	351.00	287.32		63.68
Soldiers' and Sailors' Benefits,	21,650.00	21,666.16	21,666.16		
Soldiers' and Sailors' Graves, Care of,	800.00	800.00	800.00		
Streets and Engineering,	1,000,401.58	1,073,850.24	1,065,985.37		7,864.87
Streets and Engineering, Work in Progress,	53,301.76	53,301.76	53,301.76		
Weights and Measures, Sealer of,	2,595.00	2,595.00	2,577.72		17.28
Winchester Park Fire Station Remodeling,		11,174.48	11,174.48		
Wires, Inspector of,	3,100.00	3,100.00	2,767.23		332.77

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SCHEDULE OF APPROPRIATIONS AS OF NOVEMBER 30, 1916.

GENERAL FUND—Continued.

(Schedule E.)

Department	Original	As Modified to Date	Charges During Year	Reserved for Encumbrances	Unencumbered Balances
Workmen's Compensation,		$2,500.00	$2,042.25		$457.75
Credits Available for Re-Appropriation:					
Assessors,		3.00			3.00
Charities,		666.80			666.80
Health,		6.48			6.48
Law,		11.46			11.46
Municipal Group Buildings,		143.00			143.00
Municipal Heating Plant,		4,507.50			4,507.50
Municipal Transportation Commission,		79.98			79.98
Public Parks,		233.10			233.10
Police,		48.28			48.28
Schools,		4,151.34			4,151.34
Schools, Committee on City Property,		419.82			419.82
Streets and Engineering,		1,019.17			1,019.17
Workmen's Compensation,		986.70			986.70
Special Accounts (Carried Forward):	$4,195,600.03	$4,356,816.79	$4,259,148.14		$97,668.65
Gerrish Park,		586.01			586.01
Military Relief Commission,		2,500.00			2,500.00
Municipal Transportation Commission,		1,997.69	441.63		1,556.06
Ordinance Codification,		1,000.00			1,000.00
Schoolhouses, Fire Prevention on,	32,650.00	32,650.00	31,294.86	$847.35	507.79
Van Horn Park,		3,050.00	1,777.45		1,272.55
	$4,228,250.03	$4,398,600.49	$4,292,662.08	$847.35	$105,091.06

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SCHEDULE OF APPROPRIATIONS AS OF NOVEMBER 30, 1916.

CAPITAL FUND.

(Schedule E.)

Department	As Modified to Date	Charges During Year	Reserved for Encumbrances	Unencumbered Balances
Brightwood School Building,	$96.95	$96.95		
Buckingham School Building,	2,260.64	2,260.64		
Dwight Street Underpass,	27,142.55			$27,142.55
Dwight and Willow Streets Extension,	11,017.90	9,981.03		1,036.87
Fulton Street Widening,	56,439.75	35,058.17		21,381.58
High School of Commerce,	23,173.62	22,905.62	$268.00	
Hillman Street Extension,	1,999.53	143.77		1,855.76
Howard Street School Addition,	150,000.00	53,851.44	52,734.31	43,414.25
Land for Schoolhouse Purposes, Boston Road,	4,000.00			4,000.00
Land for Schoolhouse Purposes, Franklin and Greenwood Streets,	271,170.67	19,527.12	47,741.34	203,902.21
Land for Schoolhouse Purposes, Washington Street,	10,000.00			10,000.00
Municipal Group,	1,500.00		1,500.00	
Municipal Group, Additional Land,	25,077.44	25,077.44		
Myrtle Street School Building, I. O., Addition and Alterations,	539.54	539.54		
Technical High School, Additional Land,	122,673.67	44,592.68		78,080.99
Water Street Underpass,	72,648.99	3,642.59		69,001.40
Water Street Widening,	4,100.00	15.00		4,085.00
Worthington Street School Addition,	20,000.00	10,948.23	8,267.89	783.88
	$803,836.25	$228,640.22	$110,511.54	$464,684.49

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APPROPRIATION CHARGES

FOR THE

FISCAL YEAR ENDED NOVEMBER 30, 1916.

GENERAL FUND.

Code.				
GS	ASSESSORS:			
GS 00	Personal Services,.....		$16,733.72	
01	Salaries,.....	$16,726.42		
09	Special,.....	7.30		
GS 10	Services other than Personal,.....		2,734.77	
11	Transportation of Persons,.....	29.64		
13	Support of Persons,.....	34.05		
15	Communication Service,.....	110.26		
16	Printing, Engraving, etc.,.....	2,394.69		
17	Advertising and Publications,.....	13.88		
19	Miscellaneous Services,.....	152.25		
GS 30	Supplies,.....		130.89	
31	Office Supplies,.....	130.89		
GS 50	Equipment and Parts,.....		15.00	
54	Furniture and Furnishings,.....	15.00		
				$19,614.38
PB	BUILDING COMMISSIONER:			
PB 00	Personal Services,.....		$17,488.00	
PB 10	Services other than Personal,.....		1,336.72	
11	Transportation of Persons,.....	407.00		
14	Care of Animals and Vehicles,.....	277.84		
15	Communication Service,.....	75.00		
16	Printing, Engraving, etc.,.....	559.63		
19	Miscellaneous Services,.....	17.25		
PB 20	Fixed Charges and Contributions,.....		30.00	
23	Taxes and Fees Paid by the City,...	30.00		
PB 30	Supplies,.....		301.03	
31	Office Supplies,.....	70.10		
32	Fuel,.....	202.72		
33	Mechanics', Engineers', etc., Supplies,	26.71		
39	Special and Miscellaneous Supplies,..	1.50		
PB 40	Materials,.....		7.84	
44	Lumber and Wood Products,.....	3.00		
46	Paints—Painters' Supplies,.....	4.84		
PB 50	Equipment and Parts,.....		639.98	
52	Production, Construction Equipment,	556.80		
54	Furniture and Furnishings,.....	83.18		
				19,803.57
OS	CELEBRATIONS:			
OS 20	Fixed Charges and Contributions,.....		$2,300.00	
				2,300.00
	Forward,.....			$41,717.95

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Code.				
	Forward,.....			$41,717.95
CC	CHARITIES:			
CC 00	Personal Services,.....		$22,148.09	
CC 10	Services other than Personal,.....		7,594.59	
11	Transportation of Persons,.....	$251.91		
12	Transportation of Things,.....	143.83		
13	Support of Persons,.....	4,485.83		
14	Care of Animals and Vehicles,.....	326.35		
15	Communication Service,.....	191.65		
16	Printing, Engraving, etc.,.....	183.72		
17	Advertising and Publications,.....	5.23		
18	Light, Heat, Power and Electricity,..	144.73		
19	Miscellaneous Services,.....	1,861.34		
CC 20	Fixed Charges and Contributions,.....		36,914.43	
25	Outside Aid and Relief,.....	36,114.43		
29	Special and Miscellaneous Fixed Charges,.....	800.00		
CC 30	Supplies,.....		23,261.15	
31	Office Supplies,.....	97.86		
32	Fuel,.....	6,478.72		
33	Mechanics', Engineers' Supplies,.....	267.73		
34	Cleaning and Toilet Supplies,.....	957.69		
35	Wearing Apparel, Sewing Supplies,..	2,076.12		
36	Forage, Supplies for Animals,.....	2,086.73		
37	Provisions for Persons,.....	9,259.93		
38	Medical, Surgical, etc., Supplies,.....	1,880.00		
39	Special and Miscellaneous Supplies,..	156.37		
CC 40	Materials,.....		1,003.65	
42	Metals and Metal Products,.....	82.19		
43	Non-Metallic Mineral Products,.....	4.68		
44	Lumber and Wood Products,.....	668.05		
45	Rope, Hemp, Fiber Products,.....	42.21		
46	Paints—Painters' Supplies,.....	180.37		
49	Miscellaneous Materials,.....	26.15		
CC 50	Equipment and Parts,.....		2,773.02	
51	Light, Heat, Power, Equipment,.....	19.07		
52	Production Equipment, etc.,.....	541.11		
53	Live Stock,.....	495.00		
54	Furniture and Furnishings,.....	1,652.59		
55	Property, Life Preserving Equipment,	28.28		
57	Medical, Surgical, etc., Equipment,..	33.60		
59	Miscellaneous Equipment,.....	3.42		
				93,694.93
GA	CITY AUDITOR:			
GA 00	Personal Services,.....		$8,389.10	
GA 10	Services other than Personal,.....		243.55	
11	Transportation of Persons,.....	4.80		
12	Transportation of Things,.....	.29		
13	Support of Persons,.....	5.90		
15	Communication Service,.....	26.62		
16	Printing, Engraving, etc.,.....	185.85		
19	Miscellaneous Services,.....	20.09		
	Forward,.....		$8,632.65	$135,412.88

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Code.				
	Forward,.....		$8,682.65	$135,412.88
GA 30	Supplies,.....		160.98	
31	Office Supplies,.....	$160.98		
GA 50	Equipment and Parts,.....		305.50	
54	Furniture and Furnishings,.....	305.50		
				$9,099.13
GK	CITY CLERK:			
GK 00	Personal Services,.....		$8,276.38	
GK 10	Services other than Personal,.....		2,084.98	
12	Transportation of Things,.....	19.01		
15	Communication Service,.....	112.14		
16	Printing, Engraving, etc.,.....	299.96		
17	Advertising and Publications,.....	1.10		
19	Miscellaneous Services,.....	1,652.77		
GK 30	Supplies,.....		206.95	
31	Office Supplies,.....	200.80		
39	Special and Miscellaneous Supplies,..	6.15		
				10,568.31
GR	CITY COLLECTOR:			
GR 00	Personal Services,.....		$12,299.84	
01	Salaries,.....	11,993.29		
09	Special,.....	306.55		
GR 10	Services other than Personal,.....		4,878.80	
11	Transportation of Persons,.....	36.38		
12	Transportation of Things,.....	5.92		
13	Support of Persons,.....	27.25		
15	Communication Service,.....	2,561.41		
16	Printing, Engraving, etc.,.....	571.51		
17	Advertising and Publications,.....	958.94		
19	Miscellaneous Services,.....	216.89		
GR 20	Fixed Charges and Contributions,.....		358.00	
21	Rents,.....	6.00		
22	Insurance,.....	352.00		
GR 30	Supplies,.....		196.45	
31	Office Supplies,.....	189.66		
34	Cleaning and Toilet Supplies,.....	6.79		
				17,232.59
GC	CITY COUNCIL:			
GC 00	Personal Services,.....		$537.65	
01	Salaries,.....	500.00		
09	Special,.....	37.65		
GC 10	Services other than Personal,.....		1,320.16	
11	Transportation of Persons,.....	35.00		
15	Communication Service,.....	119.10		
16	Printing, Engraving, etc.,.....	334.39		
17	Advertising and Publications,.....	817.77		
19	Miscellaneous Services,.....	13.90		
GC 20	Fixed Charges and Contributions,.....		4.25	
23	Taxes and Fees Paid by the City,...	4.25		
GC 30	Supplies,.....		3.80	
31	Office Supplies,.....	3.80		
				1,865.86
	Forward,.....			$174,178.77

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Code.				
	Forward,.....			$174,178.77
GP	CITY PLANNING COMMISSION:			
GP 10	Services other than Personal,.....		$253.55	
12	Transportation of Things,.....	$1.20		
15	Communication Service,.....	60.61		
16	Printing, Engraving, etc.,.....	78.89		
19	Miscellaneous Services,.....	112.85		
GP 30	Supplies,.....		26.38	
31	Office Supplies,.....	12.88		
39	Special and Miscellaneous Supplies,..	13.50		
GP 40	Materials,.....		7.53	
44	Lumber and Wood Products,.....	7.53		
				287.46
EP	COMMITTEE ON CITY PROPERTY:			
EP 00	Personal Services,.....		$98,626.77	
01	Salaries,.....	98,611.77		
09	Special,.....	15.00		
EP 10	Services other than Personal,.....		23,810.88	
11	Transportation of Persons,.....	236.50		
12	Transportation of Things,.....	163.70		
13	Support of Persons,.....	25.90		
14	Care of Animals and Vehicles,.....	30.14		
15	Communication Service,.....	71.11		
16	Printing, Engraving, etc.,.....	53.69		
17	Advertising and Publications,.....	181.38		
18	Light, Heat, Power and Electricity,..	10,581.17		
19	Miscellaneous Services,.....	12,467.29		
EP 20	Fixed Charges and Contributions,.....		193.36	
22	Insurance,.....	7.92		
23	Taxes and Fees Paid by City,.....	85.44		
29	Special Fixed Charges,.....	100.00		
EP 30	Supplies,.....		43,718.45	
31	Office Supplies,.....	98.45		
32	Fuel,.....	40,198 83		
33	Mechanics', Engineers' Supplies,.....	1,504.37		
34	Cleaning and Toilet Supplies,.....	1,477.91		
36	Supplies for Animals,.....	1.40		
37	Provisions for Persons,.....	10.40		
38	Medical, Surgical, Supplies,.....	31.05		
39	Special and Miscellaneous Supplies,..	396.04		
EP 40	Materials,.....		5,562.38	
41	Raw Materials,.....	69.81		
42	Metals and Metal Products,.....	1,319.80		
43	Non-Metallic Mineral Products,.....	360.04		
44	Lumber and Wood Products,.....	1,702.79		
45	Fiber Products,.....	17.46		
46	Paints—Painters' Supplies,.....	2,059.73		
49	Miscellaneous Materials,.....	32.75		
EP 50	Equipment and Parts,.....		8,160.83	
51	Heat, Light, etc., Equipment,.....	1,970.21		
52	Production, etc., Equipment,.....	326.97		
54	Furniture and Furnishings,.....	5,267.32		
55	Property, etc., Equipment,.....	541.60		
	Forward,.....		$180,072.67	$174,466.23

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Code.				
	Forward,.....		$180,072.67	$174,466.23
56	Educational, etc., Equipment,.....	$54.73		
EP 60	Lands and Structures,.....		7,891.85	
62	Buildings and Structures,.....	6,852.33		
64	Excavations, Surfacings, etc.,.....	539.52		
				187,464.52
GT	CITY TREASURER:			
GT 00	Personal Services,.....		$9,666.62	
GT 10	Services other than Personal,.....		603.42	
11	Transportation of Persons,.....	29.51		
12	Transportation of Things,.....	1.04		
13	Support of Persons,.....	18.78		
15	Communication Service,.....	287.20		
16	Printing, Engraving, etc.,.....	112.84		
19	Miscellaneous Services,.....	154.10		
GT 20	Fixed Charges and Contributions,.....		280.00	
22	Insurance,.....	260.00		
29	Special Fixed Charges,.....	20.00		
GT 30	Supplies,.....		159.19	
31	Office Supplies,.....	159.19		
GT 50	Equipment and Parts,.....		186.05	
54	Furniture and Furnishings,.....	186.05		
				10,895.28
OH	DAMAGES—LAND:			
OH 67	Damages, Awards and Property Charges		$5,540.46	
				5,540.46
OD	DAMAGES—PERSONS AND PROPERTY:			
OD 26	Damages to Persons and Property,....		$9,124.57	
				9,124.57
PF	FIRE:			
PF 00	Personal Services,.....		$243,985.13	
PF 10	Services other than Personal,.....		10,365.62	
11	Transportation of Persons,.....	39.78		
12	Transportation of Things,.....	44.42		
13	Support of Persons,.....	43.00		
14	Care of Animals and Vehicles,.....	523.60		
15	Communication Service,.....	755.93		
16	Printing, Engraving, etc.,.....	78.52		
18	Light, Heat, Power and Electricity,..	3,206.25		
19	Miscellaneous Services,.....	5,674.12		
PF 20	Fixed Charges and Contributions,.....		3,460.76	
21	Rents,.....	89.54		
24	Pensions and Retirement Salaries,...	3,371.22		
PF 30	Supplies,.....		12,733.40	
31	Office Supplies,.....	117.98		
32	Fuel,.....	7,415.62		
32	Fuel, Gas,.....	155.72		
33	Mechanics', Engineers', Supplies,....	2,457.30		
34	Cleaning and Toilet Supplies,.....	874.27		
35	Wearing Apparel, Sewing Supplies,...	674.05		
36	Supplies for Animals,.....	554.95		
37	Provisions for Persons,.....	84.68		
	Forward,.....		$270,544.91	$387,491.06

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	Forward,.....		$270,544.91	$387,491.06
Code.				
38	Medical, Surgical, etc., Supplies,.....	$290.00		
39	Special and Miscellaneous Supplies,..	108.88		
PF 40	Materials,.....		1,078.41	
42	Metals and Metal Products,.....	586.02		
43	Non-Metallic Mineral Products,.....	1.59		
44	Lumber and Wood Products,.....	163.08		
45	Rope, Hemp, Fiber Products,.....	33.80		
46	Paints—Painters' Supplies,.....	292.47		
49	Miscellaneous Materials,.....	1.45		
PF 50	Equipment and Parts,.....		47,675.12	
51	Heat, Light, Power, etc., Equipment,	2,593.20		
52	Production, Construction, etc., Equipment,.....	2,529.25		
54	Furniture and Furnishings,.....	921.47		
55	Property, Life Preserving, etc., Equipment,.....	41,471.86		
56	Educational, Scientific, etc., Equipment,.....	15.85		
57	Medical, Surgical, Laboratory Equipment,.....	.75		
59	Miscellaneous Equipment,.....	142.74		
PF 60	Lands and Structures,.....		27.86	
67	Damages, Awards and Property Charges,.....	27.86		
				319,326.30
PD	FISH WARDEN:			
PD 00	Personal Services,.....		$25.00	
				25.00
201	GARBAGE DISPOSAL, STATE STREET,.....			3,651.99
PH	HEALTH:			
PH 00	Personal Services,.....		$35,809.69	
01	Salaries,.....	35,796.19		
09	Special,.....	13.50		
PH 10	Services other than Personal,.....		8,146.00	
11	Transportation of Persons,.....	1,536.02		
12	Transportation of Things,.....	72.31		
13	Support of Persons,.....	73.25		
15	Communication Service,.....	275.26		
16	Printing, Engraving, etc.,.....	574.10		
18	Light, Heat, Power and Electricity,..	2,732.24		
19	Miscellaneous Services,.....	2,882.82		
PH 20	Fixed Charges and Contributions,.....		5,626.71	
21	Rents,.....	761.00		
25	Outside Aid and Relief,.....	4,815.71		
29	Special and Miscellaneous Fixed Charges,.....	50.00		
PH 30	Supplies,.....		12,897.80	
31	Office Supplies,.....	184.46		
32	Fuel,.....	398.82		
33	Mechanics', Engineers', etc., Supplies,	20.19		
34	Cleaning and Toilet Supplies,.....	406.95		
	Forward,.....		$62,480.20	$710,494.35

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Code.				
	Forward,.....		$62,480.20	$710,494.35
35	Wearing Apparel, Sewing Supplies,...	$565.20		
36	Supplies for Animals,.....	2.80		
37	Provisions for Persons,.....	9,648 95		
38	Medical, Surgical, Laboratory Supplies,.....	1,645.98		
39	Special and Miscellaneous Supplies,..	24.45		
PH 40	Materials,.....		173.08	
42	Metals and Metal Products,.....	33.82		
44	Lumber and Wood Products,.....	40.49		
45	Rope, Hemp, Fiber Products,.....	4.20		
46	Paints—Painters' Supplies,.....	94.57		
PH 50	Equipment and Parts,.....		790.09	
52	Production, Construction Equipment,	2.45		
54	Furniture and Furnishings,.....	730.15		
57	Medical, Surgical, Laboratory Equipment,.....	29.60		
59	Miscellaneous Equipment,.....	27.89		
				63,443.37
EP	INVENTORY, CITY PROPERTY COMMITTEE,			540.00
ES	INVENTORY, SCHOOLS,.....			5,000.00
GL	LAW:			
GL 00	Personal Services,.....		$6,212.81	
01	Salaries,.....	5,440.00		
09	Special,.....	772.81		
GL 10	Services other than Personal,.....		314.74	
11	Transportation of Persons,.....	124.95		
12	Transportation of Things,.....	1.23		
13	Support of Persons,.....	81.60		
15	Communication Service,.....	75.73		
16	Printing, Engraving, etc.,.....	21.08		
19	Miscellaneous Services,.....	11.00		
GL 20	Fixed Charges and Contributions,.....		50.00	
29	Special and Miscellaneous Fixed Charges,.....	50.00		
GL 30	Supplies,.....		92.18	
31	Office Supplies,.....	92.18		
GL 50	Equipment and Parts,.....		376.61	
54	Furniture and Furnishings,.....	376.61		
				7,046.34
GI	LICENSE COMMISSIONERS:			
GI 00	Personal Services,.....		$400.00	
GI 10	Services other than Personal,.....		54.60	
16	Printing, Engraving, etc.,.....	54.60		
				454.60
GM	MAYOR:			
GM 00	Personal Services,.....		$5,895.76	
GM 10	Services other than Personal,.....		684.11	
11	Transportation of Persons,.....	308.22		
13	Support of Persons,.....	224.18		
14	Care of Animals and Vehicles,.....	4.12		
15	Communication Service,.....	65.30		
16	Printing, Engraving, etc.,.....	34.29		
	Forward,.....		$6,579.87	$76,978.668

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Code.				
	Forward,		$6,579.87	$786,978.66
19	Miscellaneous Services,	$48.00		
GM 20	Fixed Charges and Contributions,		2.00	
29	Special and Miscellaneous Fixed Charges,	2.00		
GM 30	Supplies,		209.54	
31	Office Supplies,	53.86		
32	Fuel,	146.19		
33	Mechanics', Engineers', etc., Supplies,	3.49		
39	Special and Miscellaneous Supplies,	6.00		
GM 50	Equipment and Parts,		485.09	
52	Production, Construction, etc., Equipment,	485.09		
				7,276.50
PR	MILITIA RIFLE RANGE:			
PR 00	Personal Services,		$1,396.34	
PR 10	Services other than Personal,		30.74	
19	Miscellaneous Services,	30.74		
PR 20	Fixed Charges and Contributions,		170.29	
22	Insurance,	30.00		
23	Taxes and Fees Paid by the City,	140.29		
PR 30	Supplies,		14.43	
33	Mechanics', Engineers', etc., Supplies,	6.93		
34	Cleaning and Toilet Supplies,	7.50		
PR 40	Materials,		47.01	
42	Metals and Metal Products,	2.15		
44	Lumber and Wood Products,	6.04		
46	Paints—Painters' Supplies,	38.82		
				1,658.81
OM	MUNICIPAL AUTOMOBILE:			
OM 50	Equipment and Parts,		$2,500.00	
52	Production, Construction, Conveying Equipment,	2,500.00		
				2,500.00
DD	MUNICIPAL DEBT:			
DD 20	Principal,		$368,200.00	
DDA 27	City Debt Serials,	284,200.00		
DDB 27	Water Debt Serials,	84,000.00		
DI 20	Interest,		375,974.04	
DIA	City Debt,	265,569.75		
DIB	Water Debt,	79,965.00		
DIC	Temporary Loans,	29,433.58		
DID	Trust Funds,	1,005.71		
DDC 20	Sinking Funds,		76,702.88	
DDC 27	City Debt,	61,200.00		
DDD 27	Water Debt,	15,502.88		
				820,876.92
GGM	MUNICIPAL GROUP BUILDINGS:			
GGM 00	Personal Services,		$28,849.71	
GGM 10	Services other than Personal,		11,119.68	
11	Transportation of Persons,	2.38		
12	Transportation of Things,	60.96		
15	Communication Service,	1,165.80		
	Forward,		$39,969.39	$1,619,290.89

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Code.				
	Forward,.....		$39,969.89	$1,619,290.89
16	Printing, Engraving, etc.,.....	$7.37		
18	Light, Heat, Power and Electricity,..	4,922.38		
19	Miscellaneous Services,.....	4,960.79		
GGM 30	Supplies,.....		2,211.39	
31	Office Supplies,.....	16.52		
33	Mechanics', Engineers', etc., Supplies,	363.78		
34	Cleaning and Toilet Supplies,.....	1,475.69		
37	Provisions for Persons,.....	336.52		
39	Special and Miscellaneous Supplies,..	18.88		
GGM 40	Materials,.....		330.24	
41	Raw Materials,.....	.84		
42	Metals and Metal Products,.....	58.16		
43	Non-Metallic Mineral Products,.....	2.76		
44	Lumber and Wood Products,.....	39.00		
45	Rope, Hemp, Fiber Products,.....	.30		
46	Paints—Painters' Supplies,.....	216.38		
49	Miscellaneous Materials,.....	12.80		
GGM 50	Equipment and Parts,.....		736.31	
51	Heat, Light, Power, etc., Equipment,	4.48		
52	Production, Construction, etc., Equipment,.....	3.09		
54	Furniture and Furnishings,.....	713.74		
59	Miscellaneous Equipment,.....	15.00		
GGM 60	Lands and Structures,.....		283.62	
62	Buildings and Structures,.....	283.62		
				43,530.95
GGH	MUNICIPAL HEATING PLANT:			
GGH 00	Personal Services,.....		$7,831.84	
10	Services other than Personal,.....		992.91	
12	Transportation of Things,.....	6.31		
15	Communication Service,.....	2.85		
16	Printing, Engraving, etc.,.....	1.12		
18	Light, Heat, Power and Electricity,..	215.40		
19	Miscellaneous Services,.....	767.23		
GGH 30	Supplies,.....		7,319.94	
31	Office Supplies,.....	2.00		
32	Fuel,.....	6,616.25		
33	Mechanics', Engineers', etc., Supplies,	667.03		
34	Cleaning and Toilet Supplies,.....	34.23		
39	Special and Miscellaneous Supplies,..	.43		
GGH 40	Materials,.....		15.79	
42	Metals and Metal Products,.....	.50		
43	Non-Metallic Mineral Products,.....	.50		
46	Paints—Painters' Supplies,.....	14.79		
GGH 50	Equipment and Parts,.....		153.83	
51	Heat, Light, Power, etc., Equipment,	65.36		
52	Production, Construction, etc., Equipment,.....	6.53		
54	Furniture and Furnishings,.....	31.78		
55	Property, Life Preserving, etc., Equipment,.....	50.16		
				16,314.31
	Forward,.....			$1,679,136.15

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Code.					
	Forward,.....				$1,679,186.15
OO	MUNICIPAL ORGAN:				
OO 10	Services other than Personal,.....		$184.55		
19	Miscellaneous Services,.....	$184.55			
					184.55
207	PLAINFIELD STREET BRIDGE,.....				13,070.66
PP	POLICE:				
PP 00	Personal Services,.....		$246,815.63		
01	Salaries,.....	245,500.65			
09	Special,.....	1,314.98			
PP 10	Services other than Personal,.....		15,311.11		
11	Transportation of Persons,.....	1,745.15			
12	Transportation of Things,.....	32.65			
13	Support of Persons,.....	2,015.17			
14	Care of Animals and Vehicles,.....	1,864.30			
15	Communication Service,.....	2,093.36			
16	Printing, Engraving, etc.,.....	666.08			
17	Advertising and Publications,.....	20.16			
18	Heat, Light, Power and Electricity,..	3,722.92			
19	Miscellaneous Services,.....	3,151.32			
PP 20	Fixed Charges and Contributions,.....		3,485.10		
21	Rents,.....	2.00			
22	Insurance,.....	17.50			
23	Taxes and Fees Paid by the City,...	52.25			
24	Pensions and Retirement Salaries,...	3,006.35			
29	Special and Miscellaneous Fixed				
29	Charges,.....	407.00			
PP 30	Supplies,.....		8,401.01		
31	Office Supplies,.....	740.21			
32	Fuel,.....	1,764.63			
33	Mechanics', Engineers', etc., Supplies,	3,040.78			
34	Cleaning and Toilet Supplies,.....	635.65			
35	Wearing Apparel, Sewing Supplies,..	1,606.41			
37	Provisions for Persons,.....	118.35			
38	Medical, Surgical, etc., Supplies,.....	99.35			
39	Special and Miscellaneous Supplies,..	395.63			
PP 40	Materials,.....		28.27		
44	Lumber and Wood Products,.....	6.15			
45	Rope, Hemp, Fiber Products,.....	3.40			
46	Paints—Painters' Supplies,.....	17.97			
49	Miscellaneous Materials,.....	.75			
PP 50	Equipment and Parts,.....		2,809.03		
51	Heat, Light, Power, etc., Equipment,	7.30			
52	Production, Construction, Equip-				
	ment,.....	448.48			
54	Furniture and Furnishings,.....	459.65			
55	Property, Life Preserving, etc., Equip-				
	ment,.....	1,893.60			
					276,850.15
GY	PRINTING COMMITTEE:				
GY 00	Personal Services,.....		$494.68		
GY 10	Services other than Personal,.....		3,004.50		
	Forward,.....		$3,499.18		$1,969,241.51

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Code.					
	Forward,.....		$3,499.18	$1,969,241.51
12	Transportation of Things,.....	$2.46		
15	Communication Service,.....	3.20		
16	Printing, Engraving, etc.,.....	2,995.68		
17	Advertising and Publications,.....	3.16		
GY 30	Supplies,.....		243.42	
31	Office Supplies,.....	243.42		
				3,742.60
EL	PUBLIC LIBRARY:			
EL 20	Public Library,.....		$74,111.79	
25	Contributions to Persons and Institutions,.....	74,111.79		
				74,111.79
RP	PUBLIC PARKS:			
RP 00	Personal Services,.....		$76,668.50	
01	Salaries,.....	76,658.50		
09	Special,.....	10.00		
RP 10	Services other than Personal,.....		2,427.51	
11	Transportation of Persons,.....	26.70		
12	Transportation of Things,.....	82.50		
15	Communication Service,.....	193.28		
16	Printing, Engraving, etc.,.....	101.53		
18	Light, Heat, Power and Electricity,..	589.35		
19	Miscellaneous Services,.....	1,434.20		
RP 20	Fixed Charges and Contributions,.....		127.38	
21	Rents,.....	49.50		
22	Insurance,.....	37.00		
23	Taxes and Fees Paid by the City,...	40.88		
RP 30	Supplies,.....		13,622.87	
31	Office Supplies,.....	33.32		
32	Fuel,.....	2,764.84		
33	Mechanics', Engineers', etc., Supplies,	350.11		
34	Cleaning and Toilet Supplies,.....	106.95		
35	Wearing Apparel, Sewing Supplies,...	737.02		
36	Supplies for Animals,.....	7,024.99		
37	Provisions for Persons,.....	245.22		
38	Medical, Surgical, Laboratory Supplies,.....	45.27		
39	Special and Miscellaneous Supplies,..	2,265.15		
RP 40	Materials,.....		10,441.55	
41	Raw Materials,.....	2,921.72		
42	Metals and Metal Products,.....	770.97		
43	Non-Metallic Mineral Products,.....	3,827.98		
44	Lumber and Wood Products,.....	2,167.33		
45	Rope, Hemp, Fiber Products,.....	92.19		
46	Paints—Painters' Supplies,.....	659.13		
49	Miscellaneous Materials,.....	2.23		
RP 50	Equipment and Parts,.....		6,252.11	
51	Heat, Light, Power, etc., Equipment,	673.85		
52	Production, Construction, Equipment,.....	5,037.60		
53	Live Stock,.....	250.00		
54	Furniture and Furnishings,.....	123.01		
	Forward,.....		$109,589.92	$2,047,095.90

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Code.				
	Forward,.....		$109,539.92	$2,047,095.90
55	Property, Life Preserving, etc., Equipment,.....	$95.25		
56	Educational, Scientific, etc., Equipment,.....	68.25		
59	Miscellaneous Equipment,.....	4.15		
RP 60	Lands, Structures, Other Capital Outlay,		1,640.96	
69	Other Capital Outlays,.....	1,640.96		111,180.88
GW	PUBLIC WORKS:			
GW 00	Personal Services,.....		$1,858.78	
GW 10	Services other than Personal,.....		319.00	
11	Transportation of Persons,.....	104.00		
19	Miscellaneous Services,.....	215.00		
GW 30	Supplies,.....		9.87	
31	Office Supplies,.....	9.87		2,187 65
OR	REFUNDS:			
OR 20	Fixed Charges and Contributions,.....		$52,164.48	
	Liquor Licenses,.....	48,545.43		
	Overcharges on Departmental Bills,..	532.04		
	Rentals—School Halls,.....	141.19		
	Sewer Fees,.....	2,632.40		
	Special Assessments,.....	65.70		
	Sidewalks,..... $64.50			
	Street Watering,..... 1.20			
	Taxes,.....	105.22		
	Corporation,..... 84.43			
	National Bank,..... 20.79			
	Tuition—School,.....	142.50		52,164.48
GV	REGISTRARS OF VOTERS:			
GV 00	Personal Services,.....		$10,555.08	
GV 10	Services other than Personal,.....		7,140.08	
11	Transportation of Persons,.....	65.50		
12	Transportation of Things,.....	468.21		
15	Communication Service,.....	37.06		
16	Printing, Engraving, etc.,.....	4,617.73		
17	Advertising and Publications,.....	310.17		
18	Light, Heat, Power and Electricity,..	1.02		
19	Miscellaneous Services,.....	1,640.39		
GV 20	Fixed Charges and Contributions,.....		764.50	
21	Rents,.....	764.50		
GV 30	Supplies,.....		310.94	
31	Office Supplies,.....	149.40		
33	Mechanics', Engineers', etc., Supplies,	13.86		
39	Special and Miscellaneous Supplies,..	147.68		
GV 40	Materials,.....		30.30	
46	Paints—Painters' Supplies,.....	30.30		
GV 50	Equipment and Parts,.....		20.00	
54	Furniture and Furnishings,.....	20.00		18,820.90
	Forward,.....			$2,231,449.81

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Code.				
	Forward,			$2,231,449.81
OC	RESERVE FOR CONTINGENCIES:			
OC 90	Sundry Transfers,		$50,563.20	
OS	Celebrations,	$2,300.00		
GA	City Auditor,	300.00		
GR	City Collector,	325.00		
GC	City Council,	700.00		
EP	Committee on City Property,	21,277.57		
OD	Damages to Persons and Property,	3,124.57		
PF	Fire Department,	2,399.99		
GL	Law Department,	199.34		
OR	Military Relief Commission,	2,500.00		
DDD	Municipal Debt, Water Sinking Funds,	2.88		
GY	Printing, Committee on,	500.00		
RP	Public Parks,	2,000.00		
GW	Public Works, Board of,	482.65		
GV	Registrars of Voters,	2,745.90		
ES	Schools,	200.00		
SA	Soldiers' and Sailors' Benefits,	16.16		
OW	Workmen's Compensation,	2,500.00		
	National Bank Tax,	477.64		
	Reserve for Abatement, 1915 Taxes,	2,000.00		
	Reserve for Abatement, 1916 Taxes,	6,000.00		
				50,563.20
ES	SCHOOLS:			
ES 00	Personal Services,		$692,707.96	
01	Salaries,	692,036.32		
09	Special,	671.64		
ES 10	Services other than Personal,		15,273.80	
11	Transportation of Persons,	2,678.46		
12	Transportation of Things,	2,207.55		
13	Support of Persons,	174.43		
15	Communication Service,	2,358.98		
16	Printing, Engraving, etc.,	4,475.42		
17	Advertising and Publications,	71.25		
18	Light, Heat, Power and Electricity,	2.78		
19	Miscellaneous Services,	3,304.93		
ES 20	Fixed Charges and Contributions,		1,795.17	
21	Rents,	180.00		
25	Contributions to Persons,	715.17		
29	Special and Miscellaneous Fixed Charges,	900.00		
ES 30	Supplies,		73,047.97	
31	Office Supplies,	48,466.47		
32	Fuel,	156.46		
33	Mechanics', Engineers', etc., Supplies,	882.97		
34	Cleaning and Toilet Supplies,	2,240.39		
35	Wearing Apparel, Sewing Supplies,	845.20		
	Forward,		$782,824.90	$2,282,013.01

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Code.				
	Forward,.....		$782,824.90	$2,282,013.01
36	Supplies for Animals,.....	$0.50		
37	Provisions for Persons,.....	13,393.18		
38	Medical, Surgical, Laboratory Supplies,.....	855.27		
39	Special and Miscellaneous Supplies,..	1,207.53		
ES 40	Materials,.....		8,544.38	
41	Raw Materials,.....	25.36		
42	Metals and Metal Products,.....	2,730.22		
43	Non-Metallic Mineral Products,.....	20.05		
44	Lumber and Wood Products,.....	4,923.82		
45	Rope, Hemp, Fiber Products,.....	69.15		
46	Paints—Painters' Supplies,.....	642.75		
49	Miscellaneous Materials,.....	133.03		
ES 50	Equipment and Parts,.....		11,238.56	
51	Heat, Light, Power, etc., Equipment,	376.57		
52	Production, Construction, Equipment,	2,401.84		
54	Furniture and Furnishings,.....	4,454.48		
56	Educational, Scientific, etc., Equipment,.....	2,939.21		
57	Medical, Surgical, Laboratory, Equipment,.....	914.35		
59	Miscellaneous Equipment,.....	152.11		
				802,607.84
203	Schoolhouse Purposes, Land for,....			13,500.00
GF.	Sinking Fund Commissioners:			
GF 00	Personal Services,.....		$400.00	
GF 20	Fixed Charges and Contributions,.....		25.00	
21	Rents,.....	25.00		
				425.00
PS	Smoke Inspector:			
PS 00	Personal Services,.....		$250.00	
PS 10	Services other than Personal,.....		31.32	
16	Printing, Engraving, etc.,.....	10.32		
19	Miscellaneous Services,.....	21.00		
PS 30	Supplies,.....		6.00	
31	Office Supplies,.....	6.00		
				287.32
SA	Soldiers' and Sailors' Benefits:			
SA 00	Personal Services,.....		$824.00	
01	Salaries,.....	800.00		
09	Special,.....	24.00		
SA 10	Services other than Personal,.....		897.45	
11	Transportation of Persons,.....	.50		
12	Transportation of Things,.....	12.28		
13	Support of Persons,.....	216.62		
15	Communication Service,.....	9.90		
16	Printing, Engraving, etc.,.....	4.15		
19	Miscellaneous Services,.....	654.00		
SA 20	Fixed Charges and Contributions,.....		18,525.00	
21	Rents,.....	124.00		
25	Contributions to Persons,.....	18,401.00		
SA 30	Supplies,.....		1,419.71	
	Forward,.....		$21,666.16	$3,098,833.17

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Code.				
	Forward,.....		$21,666.16	$3,098,833.17
31	Office Supplies,.....	$3.97		
32	Fuel,.....	446.23		
35	Wearing Apparel, Sewing Supplies,...	89.41		
37	Provisions for Persons,.....	857.00		
38	Medical, Surgical, Laboratory Supplies,.....	23.10		21,666.16
SC	SOLDIERS' AND SAILORS' GRAVES, CARE OF:			
SC 00	Personal Services,.....		$200.00	
SC 10	Services other than Personal,.....		600.00	
19	Miscellaneous Services,.....	600.00		800.00
WS	STREETS AND ENGINEERING:			
WS 00	Personal Services,.....		$551,631.27	
01	Salaries,.....	551,198.05		
09	Special,.....	433.22		
WS 10	Services other than Personal,.....		164,166.78	
11	Transportation of Persons,.....	1,867.75		
12	Transportation of Things,.....	6,777.42		
13	Support of Persons,.....	652.81		
14	Care of Animals and Vehicles,.....	1,087.99		
15	Communication Service,.....	643.04		
16	Printing, Engraving, etc.,.....	1,763.61		
17	Advertising and Publications,.....	85.27		
18	Light, Heat, Power and Electricity,..	129,412.95		
19	Miscellaneous Services,.....	22,370.94		
WS 20	Fixed Charges and Contributions,.....		2,237.62	
21	Rents,.....	50.00		
22	Insurance,.....	733.19		
23	Taxes and Fees Paid by the City,....	140.04		
24	Pensions and Retirement Salaries,...	1,011.39		
29	Special and Miscellaneous Fixed Charges,.....	303.00		
WS 30	Supplies,.....		31,298.97	
31	Office Supplies,.....	1,317.74		
32	Fuel,.....	11,926.35		
33	Mechanics', Engineers', etc., Supplies,	1,163.07		
34	Cleaning and Toilet Supplies,.....	326.63		
35	Wearing Apparel, Sewing Supplies,..	981.88		
36	Supplies for Animals,.....	14,785.08		
37	Provisions for Persons,.....	18.75		
38	Medical, Surgical, Laboratory, Supplies,.....	643.17		
39	Special and Miscellaneous Supplies,..	136.30		
WS 40	Materials,.....		229,332.13	
41	Raw Materials,.....	129,635.46		
42	Metals and Metal Products,.....	8,864.97		
43	Non-Metallic Mineral Products,.....	69,749.54		
44	Lumber and Wood Products,.....	19,215.54		
45	Rope, Hemp, Fiber Products,.....	401.72		
46	Paints—Painters' Supplies,.....	1,185.31		
	Forward,.....		$978,666.77	$3,121,299.33

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	Forward,.....		$978,666.77	$3,121,299.33
Code.				
49	Miscellaneous Materials,.....	$279.59		
WS 50	Equipment and Parts,.....		34,513.96	
51	Heat, Light, Power, etc., Equipment,	469.00		
52	Production, Construction, etc., Equipment,.....	26,287.41		
54	Furniture and Furnishings,.....	903.98		
55	Property, Life Preserving, etc., Equipment,.....	5,864.82		
56	Educational, Scientific, etc., Equipment,.....	652.00		
57	Medical, Surgical, Laboratory, Equipment,.....	162.98		
59	Miscellaneous Equipment,.....	173.77		
WS 60	Lands and Structures,.....		22,522.47	
62	Buildings and Structures,.....	22,522.47		
215	Stores,.....		30,282.17	
				1,065,985.37
	STREETS AND ENGINEERING, WORK IN PROGRESS,.....			53,301.76
PM	WEIGHTS AND MEASURES, SEALER OF:			
PM 00	Personal Services,.....		$1,970.97	
PM 10	Services other than Personal,.....		327.79	
11	Transportation of Persons,.....	22.20		
12	Transportation of Things,.....	101.63		
13	Support of Persons,.....	1.00		
14	Care of Animals and Vehicles,.....	187.16		
15	Communication Service,.....	1.54		
16	Printing, Engraving, etc.,.....	5.41		
17	Advertising and Publications,.....	2.25		
19	Miscellaneous Services,.....	6.60		
PM 20	Fixed Charges and Contributions,.....		10.00	
23	Taxes and Fees Paid by the City,.....	10.00		
PM 30	Supplies,.....		156.30	
31	Office Supplies,.....	1.00		
32	Fuel,.....	105.66		
33	Mechanics', Engineers', etc , Supplies,	12.57		
39	Special and Miscellaneous Supplies,..	37.07		
PM 40	Materials,.....		2.62	
42	Metals and Metal Products,.....	.37		
46	Paints—Painters' Supplies,.....	2.25		
PM 50	Equipment and Parts,.....		110.04	
52	Production, Construction, etc., Equipment,.....	46.01		
59	Miscellaneous Equipment,.....	64.03		
				2,577.72
210	WINCHESTER PARK FIRE STATION, REMODELING,.....			11,174.48
	Forward,.....			$4,254,338.66

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Code:				
	Forward,.....			$4,254,338.66
PW	WIRES, INSPECTOR OF:			
PW 00	Personal Services,.....		$350.00	
PW 10	Services other than Personal,.....		180.09	
12	Transportation of Things,.....	$24.74		
16	Printing, Engraving, etc.,.....	9.65		
17	Advertising and Publications,.....	13.80		
19	Miscellaneous Services,.....	132.40		
PW 40	Materials,.....		23.31	
42	Metals and Metal Products,.....	23.31		
PW 50	Equipment and Parts,.....		2,213.83	
51	Heat, Light, Power, etc., Equipment,	2,213 83		
				2,767.23
WCA	WORKMEN'S COMPENSATION:			
WCA 20	Fixed Charges and Contributions,.....		$2,042.25	
26	Damages to Persons and Property,..	1,142.25		
29	Special and Miscellaneous Fixed Charges,.....	900.00		
				2,042.25
	SPECIAL ACCOUNTS:			
	Municipal Transportation Commission,.....			441.63
	Schoolhouses, Fire Prevention on,...			31,294.86
	Van Horn Park,.....			1,777.45
	Total,.....			$4,292,662.08

CAPITAL FUND.

367	Brightwood School Building, Addition and Equipment,.....	$96.95	
361	Buckingham School Building,.....	2,260.64	
371	Dwight and Willow Streets Extension,.....	9,981.03	
372	Fulton Street Widening,.....	35,058.17	
358	High School of Commerce,.....	22,905.62	
370	Hillman Street Extension,.....	143.77	
364	Howard Street School Addition,.....	53,851.44	
368	Land for Schoolhouse Purposes, Franklin and Greenwood Streets,	19,527.12	
365	Municipal Group, Additional Land,.....	25,077.44	
366	Myrtle Street School Building,.....	539.54	
376	Technical High School, Additional Land,.....	44,592.68	
353	Water Street Underpass,.....	3,642.59	
373	Water Street Widening,.....	15.00	
377	Worthington Street School Addition,.....	10,948.23	
			$228,640.22

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GENERAL FUND SURPLUS.

For Year Ended November 30, 1916.

(Schedule F.)

Debits.		Credits.	
Appropriated in 1916 Budget,	$78,827.18	Surplus, December 1, 1915,	$525,380.05
Reserve for Abatement of Departmental Bills,	14,886.80	Unencumbered Balances of Appropriations, 1916 Budget,	97,668.65
	$93,713.98	Excess of Revenues over Estimate,	131,600.06
Surplus, November 30, 1916,	660,934.78		
	$754,648.76		$754,648.76

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CITY OF SPRINGFIELD, MASS.

Cash Receipts and Cash Payments of the City Treasury.

(Exclusive of Sinking Fund.)

For the Year Ended November 30, 1916.

SUMMARY.

Receipts.		Payments.	
General Fund (Schedule G.),	$6,789,170.54	General Fund,	$6,914,605.57
Water Fund (Schedule G.),	564,674.69	Water Fund,	411,657.60
Capital Fund (Schedule G.),	561,197.22	Capital Fund,	186,271.82
		Special and Trust Fund,	788.09
	$7,915,042.45		$7,513,323.08
Balance on December 1, 1915,	283,740.36	Balance on November 30, 1916,	685,459.73
	$8,198,782.81		$8,198,782.81

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CASH RECEIPTS.

(Schedule G.)

GENERAL FUND.

TAXES.			
Year 1916.			
Poll,	$57,468.00		
Personal,	611,081.29		
Real,	2,179,498.20		
		$2,848,047.49	
Year 1915.			
Poll,	$2,328.00		
Personal,	53,971.10		
Real,	702,419.59		
		758,718.69	
Year 1914.			
Poll,	$552.00		
Personal,	830.58		
Real,	57.75		
		1,440.33	
Taxes Paid After Abatement,		116.98	
From the Commonwealth.			
Corporation Tax,		217,398.88	
National Bank Tax,		6,084.89	
			$3,831,807.26
FEES.			
Assessors,		$10.30	
City Clerk,		1,292.95	
City Collector,		5,801.64	
Public Sanitary,		261.25	
Public Telephone,		39.65	
License Commissioners,		483.00	
Sealer of Weights and Measures,		583.64	
			8,472.43
FINES.			
House of Correction,		$725.00	
Police Court,		7,631.67	
			8,356.67
INTEREST.			
On Taxes,		$21,510.44	
On Bank Balances—City Treasurer,		12,170.76	
City Clerk,		27.65	
City Collector,		1,164.08	
On Departmental Bills,		470.95	
Accrued on Bonds Sold,		1,096.11	
			36,439.99
LICENSES.			
Auctioneers,		$60.00	
Bowling Alleys,		18.00	
Common Victualers,		500.00	
Dance,		288.00	
Dead Animal Removal,		1.00	
Dog,		5,111.79	
Forward,		$5,978.79	$3,885,076.35

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Forward,		$5,978.79	$3,885,076.35
Elevator Operator,		266.00	
Exhibition,		252.50	
Express,		348.00	
Intelligence Office,		38.00	
Innholders,		25.00	
Manicure and Massage,		11.00	
Milk,		409.50	
Pawnbrokers,		300.00	
Peddlers,		100.00	
Peddlers (Fruit and Vegetable),		3,100.00	
Poolroom,		938.00	
Private Detective,		10.00	
Rag Gatherers,		564.00	
Secondhand Dealers,		102.00	
Sunday Sales,		935.00	
Sunday Theater,		6,984.00	
Taxicab,		655.00	
Theater,		1,401.00	
Liquor,		172,042.18	
			194,459.97
PERMITS.			
Sewer Entrance,		$39,516.10	
Signs,		46.00	
Street Obstruction,		8,129.00	
Street Opening,		560.55	
Marriage,		1,282.00	
			49,533.65
RENTS.			
Administration Building,		$3,097.80	
Auditorium,		10,880.00	
Miscellaneous,		2,257.96	
Organ,		400.00	
School Halls,		1,075.00	
School Property,		2,607.60	
			20,318.36
SPECIAL ASSESSMENTS.			
Betterments,		$7,303.38	
Sidewalks and Curbing,		38,164.60	
Street Watering, 1916,		28,048.02	
Street Watering, 1915,		7,396.62	
			80,912.62
COMMITTEE ON CITY PROPERTY.			
Municipal Group Buildings.			
Miscellaneous Sales,		$106.00	
Militia Rifle Range.			
Miscellaneous Sales,		15.00	
Schoolhouse Property.			
Miscellaneous Sales,	$118.82		
Recovered Expenditures,	27.59		
		146.41	
Miscellaneous.			
Sales of Buildings,		2,195.50	
			2,462.91
Forward,			$4,232,763.86

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Forward,.....		$4,232,763.26
POLICE DEPARTMENT.		
Care of Prisoners,.....	$157.00	
Miscellaneous Sales,.....	1,310.32	
		1,467.32
FIRE DEPARTMENT.		
Miscellaneous Sales,.....	$283.10	
Recovered Expenditures,.....	27.90	
		311.00
TEMPORARY LOANS,.....		2,350,000.00
HEALTH DEPARTMENT.		
Care of Patients—Hospital,.....	$12,824.47	
Miscellaneous Sales,.....	10.25	
Recovered Expenditures,.....	24.00	
		12,858.72
DEPARTMENT OF STREETS AND ENGINEERING.		
Miscellaneous Sales,.....	$8,494.37	
Recovered Expenditures—Bridges,.....	2,496.24	
Forestry,.....	244.23	
Highways,.....	16,952.07	
Sewers,.....	2,249.63	
Sidewalks and Curbing,....	2,694.14	
Street Cleaning,...	661.12	
Street Oiling,....	851.28	
Repair Shops,....	53.99	
Rent of Equipment,.....	633.40	
Services—Engineering,.....	9.97	
Street Sprinkling—Street Railway,.....	2,500.00	
Reimbursement for 1915 Expenditures,.....	5,364.67	
		43,205.11
CHARITIES.		
Care of Inmates—Almshouse,.....	$5,453.80	
Miscellaneous Sales—Almshouse Products,..	1,242.59	
Sundries,.....	81.40	
Wood,.....	2,469.32	
Recovered Expenditures,.....	14,741.89	
		23,989.00
SOLDIERS' AND SAILORS' BENEFITS.		
Military Aid,.....	$90.00	
State Aid,.....	13,922.00	
Soldiers' and Sailors' Burials,.....	944.00	
		14,956.00
SCHOOL DEPARTMENT.		
High Schools Lunch,.....	$22,064.94	
Miscellaneous Sales—Sundry,.....	868.04	
Vocational School,....	885.28	
Tuition—Central High School,.....	4,846.00	
Evening High School,.....	676.12	
Evening School of Trades,.....	1,739.66	
Evening Vocational School,.....	14.00	
Graded Schools,.....	1,136.46	
High School of Commerce,.....	6,155.00	
Technical High School,.....	11,005.00	
Vocational School,.....	3,130.00	
Vocational School—From Commonwealth,..	6,466.54	
Moving Picture Receipts,.....	308.50	
		59,295.54
Forward,.....		$6,738,846.55

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Forward,.....			$6,738,846.55
DEPARTMENT OF PUBLIC PARKS.			
Bath House Fees,.....		$2,037.25	
Services—Care of Grounds,.....		51.00	
Miscellaneous Sales,.....		700.00	
			2,788.25
PLAINFIELD STREET BRIDGE.			
Recovered Expenditures,.....			12,000.00
MISCELLANEOUS.			
Forfeits,.....		$200.00	
Miscellaneous Sales.			
Building Department,.....	$1.83		
Law Department,.....	31.13		
Police Uniform Cloth,.....	102.24		
Registrars of Voters,.....	135.13		
Treasury Department,.....	21.98		
		292.31	
Premium on Bonds,.....		23,366.40	
Recovered Expenditures.			
Use of Electric Light,.....	$35.00		
Use of Gas,.....	1.80		
Use of Telephone,.....	5.37		
Streets and Engineering (Previous Years' Petty Cash),.....	70.57		
		112.74	
			23,971.45
REFUNDS.			
Petty Cash Funds.			
Charities Department,.....	$800.00		
City Property Committee,.....	100.00		
Health Department,.....	50.00		
High Schools Lunch,.....	600.00		
Law Department,.....	50.00		
School Department,.....	300.00		
Streets and Engineering,.....	300.00		
Police Department,.....	400.00		
		$2,600.00	
Departmental.			
Assessors,.....	$3.00		
City Property Committee,.....	49.82		
Health Department,.....	6.48		
Law Department,.....	11.46		
Municipal Group Buildings,.....	128.00		
Municipal Transportation Commission,....	79.98		
School Department,.....	32.81		
Streets and Engineering,.....	7,706.46		
Workmen's Compensation Act,.....	900.00		
Police Department,.....	46.28		
		8,964.29	
			11,564.29
Forward,.....			$6,789,170.54

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Forward,			$6,789,170.54
WATER FUND.			
SALE OF BONDS,		$100,000.00	
SALE OF WATER,		411,423.13	
SALE OF MISCELLANEOUS MATERIAL,		52,706.89	
REFUNDS.			
Petty Cash,	$500.00		
Sundry Items,	44.67		
		544.67	
			564,674.69
CAPITAL FUND.			
SALE OF BONDS,		$540,000.00	
RECOVERED EXPENDITURES.			
Hillman Street Extension,		20,447.22	
REFUNDS.			
High School of Commerce,		750.00	
			561,197.22
			$7,915,042.45

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OPERATING STATEMENT.

Year Ended November 30, 1916.

GENERAL FUND.			
Revenues Accrued:			
Taxes,	$3,878,130.08		
Special Assessments,	101,701.86		
Miscellaneous Sales,	14,151.18		
Miscellaneous Sources,	446,729.33		
Recovered Expenditures,	91,908.02		
		$4,532,620.47	
Expense Incurred (Schedule H),		4,225,958.46	
Excess—Revenue over Expense,			$306,662.01
WATER FUND.			
Revenues Accrued:			
Water Rates,	$447,265.19		
Miscellaneous Sales,	59,326.41		
		$506,591.60	
Expense Incurred (Schedule J),		298,969.84	
Excess—Revenue over Expense,			$207,621.76

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EXPENSE INCURRED IN YEAR ENDED NOVEMBER 30, 1916.

GENERAL FUND.

(Schedule H.)

Department.			Department.		
Assessors,	(Schedule 1)	$19,611.38	Forward,		$1,899,695.70
Building Commissioner,	(Schedule 2)	19,300.39	Municipal Organ,	(Schedule 24)	184.55
Celebrations,	(Schedule 3)	2,300.00	Municipal Transportation Commission,	(Schedule 25)	361.65
Charities,	(Schedule 4)	87,635.44	Police,	(Schedule 26)	275,735.62
City Auditor,	(Schedule 5)	8,793.63	Premium on Bonds,	(Schedule 27)	588.36
City Clerk,	(Schedule 6)	10,568.31	Printing Committee,	(Schedule 28)	3,742.60
City Collector,	(Schedule 7)	17,232.59	Public Library,	(Schedule 29)	74,111.79
City Council,	(Schedule 8)	1,865.86	Public Parks,	(Schedule 30)	106,005.62
City Planning Commission,	(Schedule 9)	287.46	Public Works,	(Schedule 31)	2,187.65
City Property Committee,	(Schedule 10)	161,186.35	Refunds,	(Schedule 32)	52,164.48
City Treasurer,	(Schedule 11)	10,875.28	Registrars of Voters,	(Schedule 33)	17,627.98
Damages to Persons and Property,	(Schedule 12)	9,124.57	Revenue Receivable Bills, Abatement of	(Schedule 34)	14,886.80
Fire,	(Schedule 13)	277,311.54	Schools,	(Schedule 35)	789,526.72
Fish Warden,	(Schedule 14)	25.00	Sinking Fund Commissioners,	(Schedule 36)	425.00
Garbage Disposal, State Street,	(Schedule 15)	341.99	Smoke Inspector,	(Schedule 37)	287.32
Health Department,	(Schedule 16)	62,442.87	Soldiers' and Sailors' Benefits,	(Schedule 38)	21,666.16
Law Department,	(Schedule 17)	6,704.04	Soldiers' and Sailors' Graves, Care of,	(Schedule 39)	800.00
License Commissioners,	(Schedule 18)	454.60	Streets and Engineering,	(Schedule 40)	931,549.15
Mayor,	(Schedule 19)	7,156.69	Streets and Engineering, Work in Progress,	(Schedule 40)	58,301.76
Militia Rifle Range,	(Schedule 20)	1,658.81	Taxes:	(Schedule 41)	
Municipal Debt:	(Schedule 21)		County Tax,		150,706.77
City Debt Serials,		284,200.00	National Bank Tax,		18,608.68
City Sinking Funds,		61,200.00	State Tax,		296,240.00
Interest, City Debt,		265,569.75	Weights and Measures, Sealer of,	(Schedule 42)	2,556.84
Interest, Trust Funds,		1,005.71	Winchester Park Fire Station Remodeling	(Schedule 43)	9,174.48
Interest, Temporary Loans,		29,433.58	Wires, Inspector of,	(Schedule 44)	2,767.28
Municipal Group Buildings,	(Schedule 22)	42,273.05	Workmen's Compensation Act,	(Schedule 45)	1,055.55
Municipal Heating Plant,	(Schedule 23)	11,186.31			
Forward,		$1,899,695.70			$4,225,958.46

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DEPARTMENTAL EXPENSE SCHEDULES.

(Supporting Schedule H).

ASSESSORS (Schedule 1).			
Administration.			
Salaries of Assessors and Assistant Assessors,.....		$8,751.80	
Salaries and Wages, Other Employees,....		7,981.92	
Stationery and Office Supplies,.....		145.89	
Printing, Binding, etc.,.....		2,894.69	
Advertising,.....		13.88	
Communication Service,.....		110.26	
Transportation Service,.....		63.69	
Corporation Work and Special Service,....		152.25	
			$19,614.38
Less Refunds,.....			3.00
			$19,611.38
BUILDING COMMISSIONER (Schedule 2).			
Administration.			
Salaries, Building Commissioner, and Board of Appeals,.....		$3,521.35	
Salaries and Wages, Office Employees,....		800.00	
Stationery and Office Supplies,.....		54.60	
Printing, Binding, etc.,.....		559.63	
Communication Service,.....		75.00	
Transportation Service,.....		350.00	
Other Miscellaneous Expenses and Supplies,		24.50	
Traveling Expenses,.....		57.00	
			$5,442.08
Operation.			
Salaries of Inspectors,.....		$13,166.65	
Automobile Service.			
Operating Supplies,.....	$214.56		
Repairs and Replacements,.....	425.95		
Other Expenses,.....	30.00		
		670.51	
Supplies, Not Otherwise Provided for,....		21.15	
			13,858.31
			$19,300.39
CELEBRATIONS (Schedule 3).			
Independence Day Observances,.....		$1,500.00	
Memorial Day Observances,.....		800.00	
			$2,300.00
CHARITIES (Schedule 4).			
General Administration.			
Salaries, Agent and Physician,.....		$3,478.58	
Salaries and Wages, Other Employees,....		4,385.00	
Stationery and Office Supplies,.....		64.30	
Printing, Binding, etc.,.....		154.34	
Communication Service,.....		158.04	
Transportation Service,.....		208.31	
Fees, Commissions, and Premiums,.....		3.00	
Other Miscellaneous Expenses and Supplies,		103.24	
			$8,549.81
Forward,.....			$8,549.81

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EXPENSE INCURRED IN YEAR ENDED NOVEMBER 30, 1916.

GENERAL FUND.

(Schedule H.)

Department.			Department.		
Assessors,	(Schedule 1)	$19,611.38	Forward,		$1,399,695.70
Building Commissioner,	(Schedule 2)	19,300.39	Municipal Organ,	(Schedule 24)	184.55
Celebrations,	(Schedule 3)	2,300.00	Municipal Transportation Commission,	(Schedule 25)	361.65
Charities,	(Schedule 4)	87,635.44	Police,	(Schedule 26)	275,735.62
City Auditor,	(Schedule 5)	8,793.63	Premium on Bonds,	(Schedule 27)	588.36
City Clerk,	(Schedule 6)	10,568.31	Printing Committee,	(Schedule 28)	3,742.60
City Collector,	(Schedule 7)	17,282.59	Public Library,	(Schedule 29)	74,111.79
City Council,	(Schedule 8)	1,865.86	Public Parks,	(Schedule 30)	106,005.62
City Planning Commission,	(Schedule 9)	287.46	Public Works,	(Schedule 31)	2,187.65
City Property Committee,	(Schedule 10)	161,186.35	Refunds,	(Schedule 32)	52,164.48
City Treasurer,	(Schedule 11)	10,875.28	Registrars of Voters,	(Schedule 33)	17,627.98
Damages to Persons and Property,	(Schedule 12)	9,124.57	Revenue Receivable Bills, Abatement of	(Schedule 34)	14,886.80
Fire,	(Schedule 13)	277,311.54	Schools,	(Schedule 35)	789,526.72
Fish Warden,	(Schedule 14)	25.00	Sinking Fund Commissioners,	(Schedule 36)	425.00
Garbage Disposal, State Street,	(Schedule 15)	341.99	Smoke Inspector,	(Schedule 37)	287.32
Health Department,	(Schedule 16)	62,442.87	Soldiers' and Sailors' Benefits,	(Schedule 38)	21,666.16
Law Department,	(Schedule 17)	6,704.04	Soldiers' and Sailors' Graves, Care of,	(Schedule 39)	800.00
License Commissioners,	(Schedule 18)	454.60	Streets and Engineering,	(Schedule 40)	931,549.15
Mayor,	(Schedule 19)	7,156.69	Streets and Engineering, Work in Progress,	(Schedule 40)	53,301.76
Militia Rifle Range,	(Schedule 20)	1,658.81	Taxes:	(Schedule 41)	
Municipal Debt:	(Schedule 21)		County Tax,		150,706.77
City Debt Serials,		284,200.00	National Bank Tax,		18,608.68
City Sinking Funds,		61,200.00	State Tax,		296,240.00
Interest, City Debt,		265,569.75	Weights and Measures, Sealer of,	(Schedule 42)	2,556.84
Interest, Trust Funds,		1,005.71	Winchester Park Fire Station Remodeling	(Schedule 43)	9,174.48
Interest, Temporary Loans,		29,433.58	Wires, Inspector of,	(Schedule 44)	2,767.23
Municipal Group Buildings,	(Schedule 22)	42,273.05	Workmen's Compensation Act,	(Schedule 45)	1,055.55
Municipal Heating Plant,	(Schedule 23)	11,186.81			$4,225,958.46
Forward,		$1,399,695.70			

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DEPARTMENTAL EXPENSE SCHEDULES.

(Supporting Schedule H).

ASSESSORS (Schedule 1).			
Administration.			
Salaries of Assessors and Assistant Assessors,.....		$8,751.80	
Salaries and Wages, Other Employees,....		7,981.92	
Stationery and Office Supplies,.....		145.89	
Printing, Binding, etc.,.....		2,394.69	
Advertising,.....		13.88	
Communication Service,.....		110.26	
Transportation Service,.....		63.69	
Corporation Work and Special Service,....		152.25	
			$19,614.38
Less Refunds,.....			3.00
			$19,611.38
BUILDING COMMISSIONER (Schedule 2).			
Administration.			
Salaries, Building Commissioner, and Board of Appeals,.....		$3,521.35	
Salaries and Wages, Office Employees,....		800.00	
Stationery and Office Supplies,.....		54.60	
Printing, Binding, etc.,.....		559.63	
Communication Service,.....		75.00	
Transportation Service,.....		350.00	
Other Miscellaneous Expenses and Supplies,		24.50	
Traveling Expenses,.....		57.00	
			$5,442.08
Operation.			
Salaries of Inspectors,.....		$13,166.65	
Automobile Service.			
Operating Supplies,.....	$214.56		
Repairs and Replacements,.....	425.95		
Other Expenses,.....	30.00		
		670.51	
Supplies, Not Otherwise Provided for,....		21.15	
			13,858.31
			$19,300.39
CELEBRATIONS (Schedule 3).			
Independence Day Observances,.....		$1,500.00	
Memorial Day Observances,.....		800.00	
			$2,300.00
CHARITIES (Schedule 4).			
General Administration.			
Salaries, Agent and Physician,.....		$3,478.58	
Salaries and Wages, Other Employees,....		4,385.00	
Stationery and Office Supplies,.....		64.80	
Printing, Binding, etc.,.....		154.34	
Communication Service,.....		158.04	
Transportation Service,.....		203.31	
Fees, Commissions, and Premiums,.....		3.00	
Other Miscellaneous Expenses and Supplies,		103.24	
			$8,549.81
Forward,.....			$8,549.81

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Forward,			$8,549.81
Almshouse.			
Administration.			
Salaries, Superintendent,	$1,680.00		
Stationery and Office Supplies,	19.67		
Printing, Binding, etc.,	20.55		
Communication Service,	33.72		
Transportation Service,	38.49		
Other Miscellaneous Expenses and Supplies,	35.56		
Light and Power Purchased,	110.50		
		$1,938.49	
Operation.			
Care of Inmates.			
Salaries, Nurses and Attendants,	$4,123.19		
Medical Supplies,	1,627.92		
Clothing, Dry Goods, etc.,	2,075.71		
Other Expenses,	371.22		
		8,198.04	
Feeding Inmates and Employees.			
Salaries and Wages, Cooks, Bakers, etc.	$1,175.89		
Provisions,	8,985.19		
Other Expenses,	2.00		
		10,163.08	
Housekeeping.			
Salaries and Wages, Care of Almshouse,	$1,298.81		
Cleaning, Toilet, and Janitor Supplies,	856.59		
Other Expenses,	22.19		
		2,177.59	
Laundry Service.			
Salaries and Wages,	$802.75		
Supplies,	297.41		
		600.16	
Farm and Dairy.			
Labor,	$1,394.87		
Supplies,	1,978.70		
Other Expenses,	297.50		
		3,671.07	
Heating and Lighting Plant.			
Salaries and Wages,	$2,752.75		
Fuel,	5,125.50		
Other Supplies,	146.16		
		8,024.41	
Maintenance and Repairs.			
Equipment.			
Farm and Dairy,	$166.18		
Furniture and Household,	126.97		
Heating and Lighting,	1,419.66		
Other Equipment,	109.27		
		1,822.08	
Buildings and Grounds.			
Farm Buildings,	$126.19		
Almshouse,	214.63		
Grounds,	.24		
		341.06	
Forward,		$36,935.98	$8,549.81

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Forward,		$36,935.98	$8,549.81
Replacements.			
Equipment.			
Farm and Dairy,	$618.36		
Furniture and Household,	582.49		
Heating and Lighting,	9.11		
		1,209.96	
			38,145.94
Division of Relief.			
Care of Persons in Institutions,		$5,066.65	
Contributions to Persons,		11,119.09	
Payments to Cities and Towns,		3,034.48	
Transportation,		468.46	
Burials,		621.50	
Moving Household Furniture,		103.63	
Supplies Furnished.			
Fuel,	$2,418.00		
Provisions,	16,292.56		
Clothing,	604.97		
Other Supplies,	866.66		
		20,177.19	
			40,591.00
Wayfarers' Lodge.			
Operation.			
Salaries and Wages,	$1,581.00		
Supplies,	334.98		
Other Expenses,	1,828.38		
		3,744.36	
Maintenance and Repairs.			
Equipment,	$35.09		
Buildings and Grounds,	1.30		
		36.39	
			3,780.75
Total Expense,			$91,067.50
Less Transfers and Refunds,			*3,432.06*
			$87,635.44

City Auditor (Schedule 5).		
Administration.		
Salary of City Auditor,	$3,000.00	
Salaries and Wages, Other Employees,	5,389.10	
Stationery and Office Supplies,	133.98	
Printing, Binding, etc.,	187.94	
Communication Service,	26.62	
Transportation Service,	5.09	
Other Miscellaneous Expenses and Supplies,	50.90	
		$8,793.63

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City Clerk (Schedule 6).		
Administration.		
Salary of City Clerk,	$3,000.00	
Salaries and Wages, Other Employees,	5,276.38	
Stationery and Office Supplies,	134.29	
Printing, Binding, etc.,	303.72	
Advertising,	1.10	
Communication Service,	112.14	
Other Miscellaneous Expenses and Supplies,	114.43	
Preparation of Vital Statistics,	1,626.25	
		$10,568.31
City Collector (Schedule 7).		
Administration.		
Salary of City Collector,	$3,200.00	
Salaries and Wages, Other Employees,	8,793.29	
Stationery and Office Supplies,	190.16	
Printing, Binding, etc.,	537.92	
Advertising,	958.94	
Communication Service,	2,595.00	
Transportation Service,	42.30	
Fees, Commissions and Premiums,	306.55	
Other Miscellaneous Expenses and Supplies,	608.43	
		$17,232.59
City Council (Schedule 8).		
Administration.		
Salaries and Wages,	$500.00	
Stationery and Office Supplies,	8.80	
Printing, Binding, etc.,	334.39	
Advertising,	817.77	
Communication Service,	119.10	
Other Miscellaneous Expenses and Supplies,	90.80	
		$1,865.86
City Planning Commission (Schedule 9).		
Administration.		
Stationery and Office Supplies,	$12.88	
Printing, Binding, etc.,	105.69	
Communication Service,	60.61	
Transportation Service,	1.20	
Other Miscellaneous Expenses and Supplies,	107.08	
		$287.46
City Property Committee (Schedule 10).		
General Administration.		
Salary, Schoolhouse Agent,	$2,439.59	
Salaries and Wages, Other Employees,	2,452.31	
Stationery and Office Supplies,	64.86	
Printing, Binding, etc.,	51.96	
Advertising,	171.30	
Communication Service,	68.86	
Transportation Service,	324.62	
Fees, Commissions and Premiums,	99.00	
Other Miscellaneous Expenses and Supplies,	18.05	
Traveling Expenses,	69.45	
Vacations and Other Lost Time,	551.80	
		$6,311.80
Forward,		$6,311.80

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Forward,.....			$6,311.80
General Operation.			
Motor Vehicle Service.			
Salaries, Chauffeurs,.....		$1,177.78	
Operating Supplies,.....		146.12	
Replacements,.....		300.14	
Other Expenses,.....		75.63	
			1,699.67
Schoolhouse Property.			
Acushnet Avenue.			
Care and Operation,.....	$2,615.95		
Maintenance and Repairs,.....	939.86		
		$3,555.81	
Alden Street.			
Care and Operation,.....	$1,189.96		
Maintenance and Repairs,.....	107.64		
		1,297.60	
Armory Street.			
Care and Operation,.....	$3,598.90		
Maintenance and Repairs,.....	698.72		
		4,297.62	
Barrows.			
Care and Operation,.....	$2,224.21		
Maintenance and Repairs,.....	440.16		
		2,664.37	
Boston Road.			
Care and Operation,.....	$1,083.04		
Maintenance and Repairs,.....	143.70		
		1,226.74	
Brightwood.			
Care and Operation,.....	$2,268.63		
Maintenance and Repairs,.....	232.17		
		2,500.80	
Buckingham.			
Care and Operation,.....	$5,337.24		
Maintenance and Repairs,.....	411.90		
		5,749.14	
Carew Street.			
Care and Operation,.....	$2,378.83		
Maintenance and Repairs,.....	355.58		
		2,734.41	
Central Street.			
Care and Operation,.....	$3,808.12		
Maintenance and Repairs,.....	616.85		
		4,424.97	
374 Central Street.			
Maintenance and Repairs,.....		1,277.01	
Charles Street.			
Care and Operation,.....	$1,084.79		
Maintenance and Repairs,.....	171.73		
		1,256.52	
Chestnut Street.			
Care and Operation,.....	$8,966.09		
Maintenance and Repairs,.....	1,189.75		
		10,155.84	
Forward,.....		$41,140.83	$8,011.47

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Forward,		$41,140.83	$8,011.47
Dry Bridge.			
Care and Operation,	$350.03		
Maintenance and Repairs,	95.61		
		445.64	
Eastern Avenue.			
Care and Operation,	$1,764.01		
Maintenance and Repairs,	161.99		
		1,926.00	
East Union Street.			
Care and Operation,	$1,903.04		
Maintenance and Repairs,	336.64		
		2,239.68	
Five Mile Pond.			
Care and Operation,	$275.49		
Maintenance and Repairs,	44.02		
		319.51	
Forest Park.			
Care and Operation,	$4,104.71		
Maintenance and Repairs,	1,445.89		
		5,550.60	
Glenwood.			
Care and Operation,	$868.03		
Maintenance and Repairs,	226.26		
		1,094.29	
Homer Street.			
Care and Operation,	$2,082.00		
Maintenance and Repairs,	251.48		
		2,333.48	
Hooker.			
Care and Operation,	$3,259.34		
Maintenance and Repairs,	609.38		
		3,868.72	
Howard Street.			
Care and Operation,	$3,492.95		
Maintenance and Repairs,	424.51		
		3,917.46	
Indian Orchard Grammar.			
Care and Operation,	$5,400.72		
Maintenance and Repairs,	273.84		
		5,674.56	
Indian Orchard Primary.			
Care and Operation,	$1,550.76		
Maintenance and Repairs,	348.45		
		1,899.21	
Jefferson Avenue.			
Care and Operation,	$2,109.83		
Maintenance and Repairs,	331.28		
		2,441.11	
Kensington Avenue.			
Care and Operation,	$2,922.74		
Maintenance and Repairs,	492.27		
		3,415.01	
Lincoln.			
Care and Operation,	$2,687.08		
Maintenance and Repairs,	535.06		
		3,222.14	
Forward,		$79,488.24	$8,011.47

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Forward,.....		$79,488.24	$8,011.47
School Street.			
Care and Operation,.....	$1,214.69		
Maintenance and Repairs,.....	114.23		
		1,328.92	
Sixteen Acres.			
Care and Operation,.....	$506.38		
Maintenance and Repairs,.....	27.80		
		534.18	
State Street.			
Care and Operation,.....	$2,003.16		
Maintenance and Repairs,.....	464.50		
		2,467.66	
Strickland.			
Care and Operation,.....	$1,612.91		
Maintenance and Repairs,.....	147.26		
		1,760.17	
Sumner Avenue.			
Care and Operation,.....	$2,210.54		
Maintenance and Repairs,.....	319.53		
		2,530.07	
Tapley.			
Care and Operation,.....	$2,750.46		
Maintenance and Repairs,.....	485.86		
		3,236.32	
47 Vernon Street.			
Care and Operation,.....	$174.57		
Maintenance and Repairs,.....	33.78		
		208.35	
Vocational.			
Care and Operation,.....	$2,749.59		
Maintenance and Repairs,.....	149.20		
		2,898.79	
White Street.			
Care and Operation,.....	$2,310.39		
Maintenance and Repairs,.....	490.31		
		2,800.70	
William Street.			
Care and Operation,.....	$2,524.21		
Maintenance and Repairs,.....	653.41		
		3,177.62	
Worthington Street.			
Care and Operation,.....	$2,703.61		
Maintenance and Repairs,.....	513.29		
		3,216.90	
Carlisle.			
Care and Operation,.....		25.05	
Oakland Street.			
Care and Operation,.....		151.84	
Rushville.			
Care and Operation,.....		132.82	
Unassigned.			
Miscellaneous Expenditures,.....		319.85	
Forward,.....		$104,277.48	$8,011.47

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Forward,.....		$104,277.48	$8,011.47
Central High.			
Care and Operation,.....	$10,717.40		
Maintenance and Repairs,.....	876.31		
		11,593.71	
High School of Commerce.			
Care and Operation,.....	$23,189.07		
Maintenance and Repairs,.....	329.94		
		23,519.01	
Technical High.			
Care and Operation,.....	$11,652.05		
Maintenance and Repairs,.....	942.94		
		12,594.99	
Emery Street Workshop and Storehouse.			
Care and Operation,.....	$1,502.37		
Maintenance and Repairs,.....	279.22		
		1,781.59	
Other Property.			
Care and Operation,.....	$96.53		
Maintenance and Repairs,.....	31.17		
		127.70	
			153,894.48
Total Expense,.....			$161,905.95
Less Rebates,.....			*719.60*
			$161,186.35
CITY TREASURER (Schedule 11).			
Administration.			
Salary of City Treasurer,.....		$3,500.00	
Salaries and Wages, Other Employees,....		6,166.62	
Stationery and Office Supplies,.....		104.08	
Printing, Binding, etc.,.....		167.15	
Communication Service,.....		287.20	
Transportation Service,.....		51.52	
Fees, Commissions and Premiums,.....		385.00	
Other Miscellaneous Expenses and Supplies,		47.66	
Office Equipment,.....		166.05	
			$10,875.28
DAMAGES TO PERSONS AND PROPERTY (Schedule 12).			
Personal,.....		$8,790.10	
Property,.....		334.47	
			$9,124.57
FIRE DEPARTMENT (Schedule 13).			
General Administration.			
Salaries, Chief, Deputy Chief and District Chiefs,.....		$8,342.72	
Salaries and Wages, Other Employees,....		1,327.16	
Stationery and Office Supplies,.....		73.11	
Printing, Binding, etc.,.....		100.62	
Communication Service,.....		757.08	
Transportation Service,.....		112.82	
Other Miscellaneous Expenses and Supplies,		322.73	
Pensions,.....		3,371.22	
			$14,407.46
General Operation.			
Vacations and Other Lost Time,.....			29,579.01
Forward,.....			$43,986.47

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Forward,.....			$43,986.47
Fire Protection.			
Station No. 1, Court Street.			
Salaries,.....	$20,264.69		
Supplies and Expenses,.....	2,426.02		
		$22,690.71	
Station No. 2, North Street.			
Salaries,.....	$11,667.61		
Supplies and Expenses,.....	1,802.89		
		13,470.50	
Station No. 3, Oakland Street.			
Salaries,.....	$17,679.87		
Supplies and Expenses,.....	846.34		
		18,526.21	
Station No. 4, Walnut Street.			
Salaries,.....	$19,335.27		
Supplies and Expenses,.....	1,068.74		
		20,404.01	
Station No. 5, Indian Orchard.			
Salaries,.....	$14,128.86		
Supplies and Expenses,.....	795.49		
		14,924.35	
Station No. 6, Mill Street.			
Salaries,.....	$17,085.33		
Supplies and Expenses,.....	677.41		
		17,762.74	
Station No. 7, Chestnut Street.			
Salaries,.....	$16,270.50		
Supplies and Expenses,.....	789.67		
		17,060.17	
Station No. 8, Winchester Park.			
Salaries,.....	$18,294.44		
Supplies and Expenses,.....	1,148.61		
		19,443.05	
Station No. 9, Armory Street.			
Salaries,.....	$8,570.35		
Supplies and Expenses,.....	376.24		
		8,946.59	
Station No. 10, North Main Street.			
Salaries,.....	$16,736.01		
Supplies and Expenses,.....	1,011.74		
		17,747.75	
Station No. 11, Plainfield Street.			
Salaries,.....	$8,206.29		
Supplies and Expenses,.....	254.87		
		8,461.16	
Station No. 12, Margaret Street.			
Salaries,.....	$7,922.09		
Supplies and Expenses,.....	578.75		
		8,500.84	
Station No. 13, Pine Street.			
Salaries,.....	$19,268.49		
Supplies and Expenses,.....	1,064.58		
		20,333.07	
Station No. 14, Boston Road.			
Supplies and Expenses,.....		2.17	
			208,273.32
Forward,.....			$252,259.79

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Forward,			$252,259.79
Fire Alarm Telegraph Bureau.			
Salary, Superintendent,		$1,470.43	
Salaries and Wages, Other Employees,		7,817.52	
Supplies,		599.61	
Repairs and Replacements,		2,188.46	
Other Expenses,		133.48	
			12,209.50
Motor Vehicle Service.			
Operating Supplies,		$89.01	
Repairs and Replacements,		1,504.66	
Upkeep of Fire Alarm Telegraph Bureau's Car,		310.30	
			1,903.97
Fire Prevention.			
Salaries,			18.49
Supplies Not Chargeable Elsewhere.			
Mechanics' and Engineers',		$15.81	
Cleaning, Toilet, and Janitors',		706.40	
Forage and Veterinary Supplies,		540.05	
Oils and Lubricants,		23.32	
Other Miscellaneous Supplies,		49.46	
			1,335.04
Recovered Expenditures.			
Miscellaneous Items,			36.90
Maintenance and Repairs.			
Equipment.			
Horses,		$424.45	
Fire Fighting Apparatus.			
Motor Driven,	$4,964.04		
Horse Driven,	.25		
		4,964.29	
Fire Fighting Hand Equipment,		269.05	
Life Saving Equipment,		4.75	
Furniture and Dormitory,		357.39	
Other Miscellaneous,		33.90	
			6,053.83
Buildings and Grounds.			
Station No. 1, Court Street,		$16.65	
Station No. 2, North Street,		136.41	
Station No. 3, Oakland Street,		33.67	
Station No. 4, Walnut Street,		21.70	
Station No. 5, Indian Orchard,		90.00	
Station No. 6, Mill Street,		24.05	
Station No. 7, Chestnut Street,		45.78	
Station No. 8, Winchester Park,		95.18	
Station No. 10, North Main Street,		96.70	
Station No. 11, Plainfield Street,		43.61	
Station No. 12, Margaret Street,		12.56	
Station No. 13, Pine Street,		2.00	
			618.31
Replacement Not Elsewhere Provided for.			
Equipment.			
Fire Fighting Apparatus, Motor Driven,		$646.29	
Fire Fighting Hand Equipment,		163.28	
Forward,		$809.57	$274,435.83

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Forward,		$809.57	$274,435.83
Hose,		1,579.10	
Life Saving Equipment,		50.00	
Furniture and Dormitory,		187.50	
Other Miscellaneous,		123.99	
			2,750.16
Buildings and Real Property.			
Station No. 8, Winchester Park,			125.55
Total,			$277,311.54

FISH WARDEN (Schedule 14).

Salary of Fish Warden,	$25.00

GARBAGE DISPOSAL, STATE STREET (Schedule 15).

Operation.		
Traveling Expenses,	$166.29	
Heat, Light and Power,	96.52	
Other Miscellaneous Supplies and Expenses,	79.18	
		$341.99

HEALTH DEPARTMENT (Schedule 16).

Division of Inspection.			
Administration.			
Salaries, Chief Officers,	$1,901.57		
Salaries and Wages, Other Employees,	2,373.50		
Stationery and Office Supplies,	90.25		
Printing, Binding, etc.,	272.55		
Communication Service,	170.68		
Transportation Service,	96.43		
Other Miscellaneous Expenses and Supplies,	96.19		
Rents and Privileges,	600.00		
		$5,601.17	
Operation.			
Sanitary Inspection.			
Salaries, Inspectors,	$7,600.00		
Other Expenses,	300.00		
		7,900.00	
Medical Inspection of School Children.			
Salaries, Inspectors and Nurses,	$9,265.00		
Supplies,	83.85		
Other Expenses,	284.73		
		9,633.58	
Milk and Dairy Inspection.			
Salaries, Inspectors,	$2,733.20		
Other Expenses,	539.42		
		3,272.62	
Food Inspection.			
Salaries, Inspectors,		1,500.00	
Laboratory Service.			
Salaries and Wages,	$1,952.42		
Laboratory Supplies,	114.35		
Other Expenses,	483.91		
		2,550.68	
Forward,		$30,458.05	

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Forward,		$30,458.05	
Operating Supplies Not Chargeable Elsewhere.			
Disinfectants,	$174.14		
Other Supplies,	67.81		
		241.95	
Tuberculosis Dispensary.			
Salaries,	$450.00		
Supplies,	54.58		
Other Expenses,	399.97		
		904.55	
			$31,604.55
Division of Hospitals.			
Administration.			
Salary, Matron,	$900.00		
Stationery and Office Supplies,	20.78		
Printing, Binding, etc.,	69.87		
Communication Service,	9.68		
Transportation Service,	530.78		
Other Miscellaneous Expenses and Supplies,	162.46		
Heat, Light and Power,	2,686.57		
		$4,380.14	
Operation.			
Professional Care of Patients.			
Salaries and Wages,	$6,260.80		
Medical and Surgical Supplies,	1,090.77		
Other Expenses,	22.25		
		7,373.82	
Feeding Patients and Employees.			
Salaries and Wages,	$723.87		
Provisions,	9,621.95		
		10,345.82	
Housekeeping.			
Household Supplies,	$672.68		
Other Expenses,	20.08		
		692.76	
Laundry Service,		2,042.61	
Supplies Not Chargeable Elsewhere.			
Fuel,	$398.82		
Disinfectants,	60.57		
		459.39	
Maintenance and Repairs.			
Hospital Equipment.			
Household,	$25.40		
Other,	57.65		
		83.05	
Building Equipment.			
Heating System,	$20.20		
Lighting System,	5.36		
Plumbing System,	98.94		
		124.50	
Buildings and Real Property.			
Buildings,	$166.35		
Grounds,	52.38		
		218.73	
Forward,		$25,720.82	$31,604.55

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Forward,.....	$25,720.82	$31,604.55
Replacements.		
Hospital Equipment, Household,.....	301.79	
Payments to Other Institutions.		
Payments to Hospitals,.....	4,815.71	
		30,838.32
		$62,442.87

LAW DEPARTMENT (Schedule 17).

Administration.		
Salary of City Solicitor and Assistant City Solicitor,.....	$4,700.00	
Salaries and Wages, Other Employees,....	710.00	
Stationery and Office Supplies,.....	92.18	
Printing, Binding, etc.,.....	21.08	
Communication Service,.....	75.73	
Transportation Service,.....	206.93	
Fees, Commissions and Premiums,.....	772.81	
Other Miscellaneous Expenses and Supplies,	106.77	
Vacations and Other Lost Time,.....	30.00	
		$6,715.50
Less Refunds,.....		*11.46*
		$6,704.04

LICENSE COMMISSIONERS (Schedule 18).

Administration.		
Salaries and Wages, Chairman and Clerk,	$400.00	
Printing, Binding, etc.,.....	54.60	
		$454.60

MAYOR (Schedule 19).

Administration.		
Salary of Mayor,.....	$4,000.00	
Salaries and Wages, Other Employees,....	1,200.00	
Stationery and Office Supplies,.....	53.86	
Printing, Binding, etc.,.....	34.29	
Communication Service,.....	65.30	
Transportation Service,.....	21.50	
Other Miscellaneous Expenses and Supplies,	25.50	
Entertainments,.....	388.48	
Traveling Expenses,.....	155.72	
Vacations and Other Lost Time,.....	30.00	
		$5,974.65
Operation.		
Automobile Service.		
Salary, Chauffeur,.....	$665.76	
Operating Supplies,.....	408.74	
Repairs and Replacements,.....	24.56	
Other Expenses,.....	82.98	
		1,182.04
		$7,156.69

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MILITIA RIFLE RANGE (Schedule 20).

Administration.			
Fees, Commissions and Premiums,		$30.00	
Taxes and Water Rents,		140.29	
			$170.29
Operation.			
Salaries and Wages,		$320.50	
Other Expense,		8.55	
			329.05
Maintenance and Repairs, Other Expenses,			1,159.47
			$1,658.81

MUNICIPAL DEBT (Schedule 21).

Principal.			
City Debt Serials,			$284,200.00
Interest.			
City Debt,		$265,569.75	
Trust Funds,		1,005.71	
Temporary Loans,		29,433.58	
			296,009.04
Sinking Fund.			
City Debt,			61,200.00
			$641,409.04

MUNICIPAL GROUP BUILDINGS (Schedule 22).

General Administration.			
Salary, Superintendent,		$2,033.08	
Salaries and Wages, City Messenger,		1,391.64	
Stationery and Office Supplies,		16.52	
Printing, Binding, etc.,		7.37	
Communication Service,		4.40	
Transportation Service,		1.38	
Vacations and Other Lost Time,		576.97	
			$4,031.36
Operation.			
Salary, Head Janitor,			1,133.00
Administration Building.			
Administration.			
Communication Service,	$3,319.40		
Transportation Service,	12.21		
Other Miscellaneous Expenses and Supplies,	2.50		
Heat, Light and Power,	2,518.08		
		$5,852.19	
Operation.			
Salaries and Wages, Care and Cleaning,	$12,754.82		
Mechanics' and Engineers' Supplies,	44.53		
Cleaning, Toilet, and Janitor Supplies,	703.23		
Electrical Supplies,	29.49		
Other Supplies,	350.55		
Special Cleaning Expenses,	636.49		
		14,519.11	
Forward,		$20,371.30	$5,164.36

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Forward,.....		$20,371.30	$5,164.36
Maintenance and Repairs.			
Equipment and Plant,.....	$381.54		
Buildings and Grounds,.....	772.23		
		1,153.77	
			21,525.07
Auditorium.			
Administration.			
Transportation Service,.....	$39.14		
Heat, Light and Power,.....	1,899.40		
		$1,938.54	
Operation.			
Salaries and Wages, Care and Cleaning,	$3,409.17		
Mechanics' and Engineers' Supplies,....	1.87		
Cleaning, Toilet, and Janitor Supplies,..	175.90		
Electrical Supplies,.....	5.80		
Special Cleaning Expenses,.....	724.15		
		4,816.89	
Maintenance and Repairs.			
Equipment and Plant,.....	$188.91		
Buildings and Grounds,.....	404.34		
		593.25	
			6,848.68
Campanile.			
Administration.			
Heat, Light and Power,.....		$508.00	
Operation.			
Salaries and Wages, Care and Cleaning,	$826.96		
Cleaning, Toilet, and Janitor Supplies,..	3.13		
Electrical Supplies,.....	17.68		
		847.77	
Maintenance and Repairs.			
Equipment and Plant, Other Expense,..	$76.88		
Buildings and Grounds,.....	689.17		
		766.05	
			2,121.82
Campanile Clock.			
Maintenance and Repairs,.....			490.50
Grounds.			
Operation, Special Cleaning Expenses and			
Contracts,.....		$831.90	
Maintenance and Repairs,.....		51.11	
			883.01
Public Sanitary.			
Operation.			
Salaries and Wages, Care and Cleaning,	$3,937.50		
Transportation Service,.....	10.61		
Mechanics' and Engineers' Supplies,....	.75		
Cleaning, Toilet, and Janitor Supplies,..	616.92		
Electrical Supplies,.....	10.50		
Special Cleaning Expenses,.....	124.72		
		$4,701.00	
Maintenance and Repairs.			
Equipment and Plant,.....	$116.23		
Buildings and Grounds,.....	422.38		
		538.61	
			5,239.61
			$42,273.05

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MUNICIPAL HEATING PLANT (Schedule 23).			
Administration.			
Salary, Chief Engineer,		$1,479.53	
Stationery and Office Supplies,		3.00	
Printing, Binding, etc.,		1.12	
Communication and Transportation Service,		4.93	
Other Miscellaneous Expenses and Supplies,		261.10	
Vacations and Other Lost Time,		305.56	
			$2,055.24
Operation.			
Salaries and Wages, Boiler Room,		$3,799.06	
Salaries and Wages, Engine Room,		1,251.49	
Operating Supplies.			
Coal,	$6,878.37		
Oils and Lubricants,	89.35		
Electrical Supplies,	1.12		
Other Miscellaneous Supplies,	127.71		
		7,096.55	
Other Miscellaneous Expenses,		271.55	
			12,418.65
Maintenance and Repairs.			
Boiler Room Equipment,		$345.05	
Engine Room Equipment,		678.49	
			1,014.54
Replacements.			
Boiler Room Equipment,		$136.96	
Engine Room Equipment,		18.92	
			155.88
			$15,644.31
Less Transfers,			*4,507.50*
			$11,136.81
MUNICIPAL ORGAN (Schedule 24).			
Maintenance and Repairs,			$184.55
MUNICIPAL TRANSPORTATION COMMISSION (Schedule 25).			
Administration.			
Stationery and Office Supplies,		$0.48	
Advertising,		68.78	
Copying Testimony,		362.79	
Other Miscellaneous Expenses and Supplies,		9.58	
			$441.63
Less Refunds,			*79.98*
			$361.65

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POLICE (Schedule 26).			
Administration.			
Administration Salaries,		$6,258.72	
Salaries and Wages, Other Employees,		7,904.00	
Stationery and Office Supplies,		458.11	
Printing, Binding, etc.,		662.42	
Advertising,		21.16	
Communication Service,		2,094.42	
Transportation Service,		1,692.45	
Fees, Commissions and Premiums,		987.91	
Other Miscellaneous Expenses and Supplies,		2,034.57	
Traveling Expenses, Outside City,		685.31	
Heat, Light and Power,		3,672.38	
Vacations and Other Lost Time,		15,100.00	
Pensions,		2,634.57	
			$44,206.02
Operation.			
Policing the City.			
Salaries, Officers and Patrolmen,	$160,832.91		
Care of Horses,	1,488.39		
Expenses,	1.40		
		$162,322.70	
Regulation of Traffic.			
Salaries,	$22,360.00		
Expenses,	13.60		
		22,373.60	
Detection of Crime.			
Salaries,	$15,600.00		
Bertillon Supplies,	113.58		
Expenses,	5.60		
		15,719.18	
Police Patrol Service, Expenses,		306.63	
Motor Vehicle Service.			
Salaries and Wages,	$8.15		
Operating Supplies,	3,597.91		
Repairs and Replacements,	675.55		
		4,281.61	
Police Court.			
Salaries, Prosecuting Attorney,	$1,200.00		
Salaries, Officers Detailed,	1,200.00		
		2,400.00	
Detention and Care of Prisoners.			
Salaries and Wages,	$15,860.00		
Provisions,	635.33		
Other Supplies,	9.60		
Other Expenses,	111.50		
		16,616.43	
Police Signal System.			
Salaries and Wages,	$500.00		
Supplies,	1,360.70		
Repairs and Replacements,	853.78		
Other Expenses,	10.89		
		2,725.37	
Forward,		$226,745.52	$44,206.02

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Forward,.....		$226,745.52	$44,206.02
Supplies Used Generally.			
Mechanics' and Engineers',.....	$6.32		
Cleaning, Toilet, and Janitors',.....	592.37		
Wearing Apparel,.....	942.09		
Ammunition,.....	3.60		
Medical,.....	109.61		
Fuel,.....	153.00		
Other Supplies,.....	162.97		
		1,969.96	
			228,715.48
Maintenance and Repairs.			
Equipment.			
Bicycles and Accessories,.....	$149.30		
Small and Side Arms,.....	8.40		
Office Furniture and Equipment,.....	306.82		
Garage Equipment,.....	240.55		
Other Supplies,.....	164.06		
		$869.13	
Buildings and Grounds, Central Station,...		293.53	
			1,162.66
Replacements.			
Equipment.			
Motor Vehicles,.....	$940.00		
Bicycles and Accessories,.....	7.30		
Office Equipment,.....	35.00		
Other Equipment,.....	717.44		
		$1,699.74	1,699.74
Total Expense,.....			$275,783.90
Less Refunds,.....			*48.28*
			$275,735.62
PREMIUM ON BONDS (Schedule 27).			
Administration.			
Printing, Binding, etc.,.....		$18.79	
Advertising,.....		58.50	
Transportation Service,.....		13.30	
Fees, Commissions and Premiums,.....		495.00	
Other Miscellaneous Expenses and Supplies,		2.77	
			$588.36
PRINTING COMMITTEE (Schedule 28).			
Administration.			
Salaries and Wages,.....		$494.68	
Stationery and Office Supplies,.....		243.42	
Printing, Binding, etc.,.....		2,995.68	
Advertising,.....		3.16	
Other Miscellaneous Expenses and Supplies,		5.66	
			$3,742.60
PUBLIC LIBRARY (Schedule 29).			
Contributions to Libraries,.....			$74,111.79

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PUBLIC PARKS (Schedule 30).			
General Administration.			
Salary, Superintendent,		$3,000.00	
Salaries and Wages, Other Employees,		10,419.54	
Stationery and Office Supplies,		51.76	
Printing, Binding, etc.,		84.56	
Communication Service,		106.12	
Transportation Service,		6.50	
Fees, Commissions and Premiums,		76.70	
Other Miscellaneous Expenses and Supplies,		26.47	
Heat, Light and Power,		113.49	
Taxes and Water Rents,		40.88	
Vacations and Other Lost Time,		481.55	
			$14,407.57
General Operation.			
Automobile Service.			
Salaries, Chauffeurs,	$1,934.80		
Operating Supplies,	1,646.81		
Repairs and Replacements,	2,732.67		
Other Expenses,	195.16		
		$6,509.44	
Teaming and Stables.			
Wages, Stable Men and Drivers,	$3,559.55		
Forage,	2,246.39		
Other Expenses,	857.88		
		6,663.82	
Drinking Fountains.			
Wages, Laborers,	$18.50		
Ice,	245.22		
Other Expenses,	81.18		
		344.90	
Zoological Garden, Forest Park.			
Wages,	$4,501.25		
Forage,	4,742.69		
Other Supplies,	650.94		
Other Expenses,	28.45		
		9,923.33	
			23,441.49
Operating, Care and Maintenance, Parks.			
Forest Park.			
Buildings and Structures,	$3,269.66		
Roadways and Drives,	11,075.97		
Lawns, Gardens and Flowers,	2,808.77		
Pools and Ornamental Fountains,	53.20		
Tennis Courts, Ball and Play Grounds,	1,373.95		
Other Expenses,	11,441.59		
		$30,023.14	
Van Horn Park.			
Buildings and Structures,	$15.57		
Roadways and Drives,	1,695.20		
Lawns, Gardens and Flowers,	2,339.20		
Other Expenses,	44.98		
		4,094.95	
Forward,		$34,118.09	$37,849.06

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Forward,		$34,118.09	$37,349.36
All Other Small Parks.			
Roadways and Drives,	$347.66		
Lawns, Gardens and Flowers,	3,335.56		
Other Expenses,	897.55		
		4,580.77	
Botanical Division.			
Buildings and Structures,	$2,059.00		
Sidewalks and Foot Paths,	661.54		
Lawns, Gardens and Flowers,	7.11		
		3,727.65	
			42,426 51
Maintenance and Repairs.			
Equipment.			
Office,	$1.31		
Stables,	96.43		
Construction,	212.39		
Zoological,	1.60		
Horticultural,	.90		
Small Tools,	19.63		
		$332.26	
Buildings,		22.24	
			354.50
Replacements.			
Equipment.			
Office,	$118.55		
Stables,	430.51		
Construction,	188.72		
Zoological,	5.55		
Horticultural,	7.10		
Small Tools,	183.57		
		$934.00	934.00
Division of Recreation and Entertainment.			
Administration.			
Salary, Director,	$1,600.00		
Salaries and Wages, Other Employees,	300.00		
Printing, Binding, etc.,	4.65		
Communication Service,	87.11		
Transportation Service,	27.70		
Rents and Privileges,	159.50		
Damages,	7.30		
		$2,186.26	
Operation.			
Automobile Service.			
Operating Supplies, $96.50			
Repairs and Replacements, 176.30			
Other Expenses, 13.56			
	$286.36		
Playgrounds.			
Salaries, Directors and Assistants, $5,465.18			
Salaries, Caretakers and Janitors, 4,582.47			
Recreational Supplies, 645.16			
Cleaning Supplies, 10.13			
Other Supplies, 173.77			
Other Expenses, 1,302.67			
	12,179.38		
Forward,	$12,465.74	$2,186.26	$81,564.07

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Forward,	$12,465.74	$2,186.26	$81,564.07
Social Centers.			
Salaries, Assistants and Musicians, $1,615.50			
Salaries, Janitors, 630.73			
Miscellaneous Supplies, 7.05			
Miscellaneous Expenses, 377.70			
	2,630.98		
Swimming Pools.			
Salaries and Wages, $2,144.58			
Supplies, 696.44			
Other Expenses, 138.74			
	2,979.76		
Celebrations and Entertainments.			
Independence Day, $190.70			
Band Concerts, 556.25			
	746.95		
		18,823.43	
Maintenance and Repairs.			
Equipment, Recreational,	$4.47		
Equipment, Playgrounds,	1,413.61		
		1,418.08	
Replacements.			
Equipment, Recreational,	$2,013.03		
Equipment, Playgrounds,	233.85		
		2,246.88	
			24,674.65
Total Expense,			$106,238.72
Less Transfers,			*233.10*
			$106,005.62
PUBLIC WORKS, BOARD OF (Schedule 31).			
Administration.			
Salaries and Wages,		$1,858.78	
Stationery and Office Supplies,		9.87	
Communication Service,		104.00	
Other Miscellaneous Expenses and Supplies,		215.00	
			$2,187.65
REFUNDS (Schedule 32).			
Liquor Licenses,		$48,545.43	
Overcharges on Departmental Bills,		532.04	
Rentals, School Halls,		141.19	
Sewer Fees,		2,632.40	
Special Assessments.			
Sidewalks,	$64.50		
Street Watering,	1.20		
		65.70	
Taxes.			
Corporation,	$84.43		
National Bank,	20.79		
		105.22	
Tuitions, School,		142.50	
			$52,164.48

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Registrars of Voters Schedule 33.			
Administration.			
Salaries and Wages,		$10,555.00	
Stationery and Office Supplies,		40.30	
Printing, Binding, etc.,		4,646.53	
Advertising,		310.17	
Communication Service,		37.06	
Transportation Service,		533.71	
Other Miscellaneous Expenses and Supplies,		740.63	
Rents and Privileges,		764.50	
			$17,627.90
Revenues Receivable, Abatement of Schedule 34.			
Abated Bills,			$14,886.80
Schools Schedule 35.			
General Administration.			
Salaries.			
Superintendent and Assistant Superintendent,	$6,000.00		
Other Employees,	10,662.33		
		$16,662.33	
Stationery and Office Supplies,		805.39	
Printing, Binding, etc.,		540.37	
Advertising,		54.36	
Communication Service,		650.87	
Transportation Service,		35.60	
Other Miscellaneous Expenses and Supplies,		324.00	
Traveling Expenses,		301.49	
Support of Truants,		545.38	
School Census,		455.84	
Repairs and Maintenance of Equipment,		6.65	
Replacement of Equipment,		61.25	
			$20,443.53
Operation, General.			
Storekeeping Service.			
Salary, Storekeeper,	$785.33		
Expenses,	1,936.73		
Replacement of Equipment,	7.35		
			2,729.41
Central High School.			
Administration.			
Salary, Principal,	$3,600.00		
Salaries and Wages, Other Employees,	712.46		
Stationery and Office Supplies,	85.62		
Printing, Binding, etc.,	491.36		
Communication Service,	103.50		
Transportation Service,	.34		
Other Miscellaneous Expenses and Supplies,	43.14		
Traveling Expenses,	46.16		
		$5,082.58	
Forward,		$5,082.58	$23,172.94

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Forward,		$5,082.58	$23,172.94
Operation.			
Salaries, Heads of Departments,	$13,725.00		
Salaries, Teachers,	47,556.17		
Salaries, Miscellaneous,	253.43		
Text and Reference Books,	3,046.49		
Stationery Supplies,	2,358.77		
Materials and Supplies,	972.16		
Other Expenses,	446.00		
Maintenance and Repairs of Equipment,	26.86		
Replacement of Equipment,	272.27		
		68,657.15	
			73,739.73
Technical High School.			
Administration.			
Salary, Principal,	$3,600.00		
Salaries, Other Employees,	1,342.66		
Stationery and Office Supplies,	103.66		
Printing, Binding, etc.,	564.90		
Communication Service,	84.09		
Transportation Service,	27.62		
Traveling Expenses,	18.65		
		$5,741.58	
Operation.			
Salaries, Heads of Departments,	$18,628.50		
Salaries, Teachers,	50,450.84		
Salaries, Miscellaneous,	926.51		
Text and Reference Books,	1,713.92		
Stationery Supplies,	957.41		
Materials and Supplies,	3,472.49		
Other Expenses,	223.82		
Maintenance and Repairs of Equipment,	159.01		
Replacement of Equipment,	234.19		
		76,766.69	
			82,508.27
Evening School of Trades.			
Administration.			
Salary, Principal,	$480.00		
Salary, Clerk,	149.50		
Printing, Binding, etc.,	30.15		
		$659.65	
Operation.			
Salaries, Teachers,	$5,460.00		
Salaries, Miscellaneous,	107.45		
Materials and Supplies,	422.30		
Maintenance and Repairs of Equipment,	24.22		
		6,013.97	
			6,673.62
High School of Commerce.			
Administration.			
Salary, Principal,	$3,600.00		
Salaries, Other Employees,	836.46		
Stationery and Office Supplies,	85.21		
Printing, Binding, etc.,	734.13		
Communication Service,	57.20		
Transportation Service,	3.76		
Traveling Expenses,	85.55		
		$5,402.31	
Forward,		$5,402.31	$186,094.56

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Forward,		$5,402.31	$186,094.56
Operation.			
Salaries, Heads of Departments,	$5,535.50		
Salaries, Teachers,	44,801.11		
Salaries, Miscellaneous,	1,096.04		
Text and Reference Books,	1,685.26		
Stationery Supplies,	2,902.58		
Materials and Supplies,	2,328.76		
Other Expenses,	808.14		
Maintenance and Repairs of Equipment,	5.39		
Replacement of Equipment,	682.05		
		59,844.83	
			65,247.14
Evening High School.			
Administration.			
Salary, Principal,	$355.00		
Salary, Other Employees,	134.75		
Stationery and Office Supplies,	4.76		
Printing, Binding, etc.,	109.06		
Communication Service,	12.00		
		$615.57	
Operation.			
Salaries, Teachers,	$5,259.50		
Text and Reference Books,	594.25		
Stationery Supplies,	438.22		
Materials and Supplies,	183.71		
Other Expenses,	67.09		
		6,542.77	
			7,158 34
Vocational School.			
Administration.			
Salary, Principal,	$2,340.00		
Salary, Clerk,	728.00		
Stationery and Office Supplies,	19.06		
Communication Service,	65.83		
Transportation Service,	21.76		
Traveling Expenses,	59.05		
		$3,233.70	
Operation.			
Salaries, Teachers,	$9,886.37		
Salaries, Miscellaneous,	61.66		
Text and Reference Books,	109.07		
Stationery Supplies,	106.47		
Materials and Supplies,	4,020.20		
Other Expenses,	66.23		
Maintenance and Repairs of Equipment,	147.59		
Replacement of Equipment,	429.41		
		14,827.00	
			18,060.70
Evening Vocational School.			
Operation.			
Salary, Teacher,	$87.00		
Tuition,	124.79		
		211.79	211.79
Forward,			$276,772.53

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Forward,.....			$276,772.58
Open Air School.			
Operation.			
Salaries, Principal and Teachers,.....	$1,837.50		
Salary, Matron,.....	360.00		
Stationery Supplies,.....	7.27		
Other Supplies,.....	614.24		
		2,819.01	2,819.01
Graded Day Schools.			
Administration.			
Salaries, Supervisors and Principals,....	$61,149.13		
Salaries, Clerical Assistants,.....	600.00		
Stationery and Office Supplies,.....	74.28		
Printing, Binding, etc.,.....	1,640.31		
Communication Service,.....	1,377.81		
Transportation Service,.....	26.53		
Other Miscellaneous Expenses and Supplies,.....	565.02		
		$65,433.08	
Operation.			
Salaries, Teachers,.....	$344,390.26		
Salaries, Matrons,.....	3,000.68		
Salaries, Miscellaneous,.....	438.74		
Transportation of Pupils,.....	2,175.00		
Text and Reference Books,.....	11,671.33		
Stationery Supplies,.....	11,252.76		
Materials and Supplies,.....	14,128.63		
Other Expenses,.....	247.02		
Maintenance and Repairs of Equipment,	221.87		
Replacement of Equipment,.....	352.23		
		387,878.52	
			453,311.60
Kindergartens.			
Operation.			
Salaries, Teachers,.....	$27,387.93		
Supplies,.....	727.82		
Other Expenses,.....	51.00		
		28,166.75	28,166.75
Elementary Evening Schools.			
Administration.			
Salaries, Principals,.....	$752.00		
Salaries, Clerical Assistants,.....	64.00		
Printing, Binding, etc.,.....	32.65		
		$848.65	
Operation.			
Salaries, Teachers,.....	$5,985.25		
Text and Reference Books,.....	100.80		
Stationery Supplies,.....	16.84		
		6,102.89	
			6,951.54
High Schools Lunch.			
Operation.			
Salaries and Wages,.....	$6,001.60		
Supplies,.....	15,080.04		
Other Expenses,.....	398.49		
Maintenance and Replacement of Equipment,.....	25.16		
		21,505.29	21,505.29
			$789,526.72

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Sinking Fund Commissioners (Schedule 36).		
Administration.		
Salary of Treasurer and Clerk,.....	$400.00	
Rents,.....	25.00	
		$425.00
Smoke Inspector (Schedule 37).		
Operation.		
Salaries and Wages,.....	$250.00	
Stationery and Office Supplies,.....	6.00	
Printing, Binding, etc.,.....	10.32	
Other Expenses,.....	21.00	
		$287.32
Soldiers' and Sailors' Benefits (Schedule 38).		
Administration.		
Salary of Secretary,.....	$800.00	
Stationery and Office Supplies,.....	3.40	
Printing, Binding, etc.,.....	5.72	
Communication Service,.....	10.40	
		$819.52
State Aid		
Contributions to Civil War Veterans,.....	$13,575.00	
Contributions to Spanish War Veterans,..	198.00	
		13,773.00
Military Aid.		
Contribution to Civil War Veterans,.....		240.00
Burials.		
Soldiers and Widows,.....	$568.00	
Fees to Burial Agent,.....	24.00	
		592.00
Soldiers' Relief.		
Contributions,.....		6,241.64
		$21,666.16
Soldiers' and Sailors' Graves, Care of (Schedule 39).		
Administration.		
Salaries,.....	$200.00	
Care of Graves,.....	600.00	
		$800.00
Streets and Engineering (Schedule 40).		
Work in Progress (showing incompleted work, sundry assets and liabilities as carried over from previous year).		
Bridge Division,.....	$15,554.52	
Car Tickets,.....	382.00	
Direct Charges, Miscellaneous,.....	43.80	
Highways Division,.....	17,447.60	
Materials and Supplies, Delivered from Stock,.....	183.08	
Materials and Supplies, Delivered to Stores,	4,253.10	
Repair Shop,.....	24.10	
Sewer Division,.....	2,337.86	
Sidewalks and Curbing,.....	19,736.66	
Small Tools,.....	382.00	
Stables and Yards,.....	1,108.09	
Wood Paving Blocks,.....	355.15	
		$53,301.76

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Completed Work.			
Bridge Construction,.....		$25,345.07	
Bridge Maintenance.			
Assessable,.....	$186.77		
City's Proportion,.....	10,797.16		
		10,983.93	
Collection of Ashes,.....		91,613.44	
Collection of Garbage,.....		49,747.66	
Forestry Operation.			
Assessable,.....	$481.08		
City's Proportion,.....	17,942.99		
		18,424.07	
Highways Construction.			
Assessable,.....	$40,742.75		
City's Proportion,.....	142,626.43		
		183,369.18	
Highways Maintenance.			
Assessable,.....	$13,018.82		
City's Proportion,.....	134,150.93		
		147,169.75	
Incinerator Contract,.....		3,312.40	
Mayor's and Municipal Automobile,.....		3,226.52	
Outside Work,.....		4,142.77	
Repair Shop,.....		721.34	
Sewers Construction.			
Assessable,.....	$169.37		
City's Proportion,.....	33,608.50		
		33,777.87	
Sewers Maintenance.			
Assessable,.....	$10,089.97		
City's Proportion,.....	17,932.76		
		28,022.73	
Sidewalks and Curbing, Construction.			
Assessable,.....	$42,248.42		
City's Proportion,.....	18,043.99		
		60,292.41	
Sidewalks and Curbing, Maintenance.			
Assessable,.....	$1,589.81		
City's Proportion,.....	2,385.80		
		3,975.61	
Stables and Yards,.....		11,902.53	
Street Cleaning.			
Assessable,.....	$560.49		
City's Proportion,.....	122,122.18		
		122,682.62	
Street Lighting.			
Street and Bridge Contract,.....	$128,593.43		
Other Expense,.....	4,051.63		
		132,645.06	
Street Oiling.			
Assessable,.....	$1,663.38		
City's Proportion,.....	23,134.52		
		24,797.90	
Street Sprinkling,.....		11,489.91	
Miscellaneous Expenditures Not Chargeable to Department,.....		3,801.54	
			$971,444.31
Forward,.....			$971,444.31

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Forward,			$371,443.5[illegible]
Work in Progress, Direct Charges.			
Asphalt Plant Expense,		$1,910.51	
Concrete Mixer Expense,		5.57	
Contracts and Other Charges,		4,394.65	
Hired Equipment,		261.46	
Materials and Supplies, Delivered from Stock,		988.31	
Materials and Supplies Used on Work,		589.24	
Motor Truck Expense,		1,176.57	
Roller Expense,		88.94	
Stable Expense,		286.23	
Steam Shovel Expense,		9.79	
Steam Wagon Expense,		6.26	
			3,333 55
Miscellaneous Expenditures Undistributed.			
Adjustments,		$114.63	
Materials and Supplies, Delivered in Stores,		593.06	
Small Tools,		3,525.66	
Unpaid Bills, 1915,		154.84	
Use of Equipment and Plant,		4,717.54	
			7,690.38
Total Expense,			$382,518.32
Less Transfers and Refunds,			50,969.17
			$331,549.15
Taxes (Schedule 41).			
County Tax,		$150,706.77	
National Bank Tax,		18,608.68	
State Tax,		296,240.00	
			$465,555.45
Weights and Measures, Sealer of (Schedule 42).			
Administration.			
Salary of Sealer,		$525.00	
Stationery and Office Supplies,		1.00	
Printing, Binding, etc.,		10.05	
Advertising,		2.25	
Communication Service,		1.54	
Transportation Service,		117.83	
Other Miscellaneous Expenses and Supplies,		80.13	
			$737.80
Operation.			
Salaries, Deputies and Inspector,		$1,445.97	
Automobile Service.			
Operating Supplies,	$121.05		
Repairs and Replacements,	147.47		
Other Expenses,	103.00		
		371.52	
Supplies Not Elsewhere Provided for,		22.43	
			1,839.92
			$2,577.72
Winchester Park Fire Station Remodeling (Schedule 43).			
Construction and Remodeling of Building,			$9,174.48

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WIRES, INSPECTOR OF (Schedule 44).		
Operation.		
Salary, Inspector,.....	$350.00	
Other Expenses,.....	47.69	
		$397.69
Maintenance and Repairs.		
Cable Supplies,.....	$1,813.83	
Other Supplies,.....	555.71	
		2,369.54
		$2,767.23
WORKMEN'S COMPENSATION (Schedule 45).		
Damages and Compensation Paid,.....		$1,142.25
Less Refunds,.....		*86.70*
		$1,055.55

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Forward,			$34,118.09	$37,849.06
All Other Small Parks.				
Roadways and Drives,		$847.66		
Lawns, Gardens and Flowers,		3,335.56		
Other Expenses,		397.55		
			4,580.77	
Botanical Division.				
Buildings and Structures,		$3,059.00		
Sidewalks and Foot Paths,		661.54		
Lawns, Gardens and Flowers,		7.11		
			3,727.65	
				42,426.51
Maintenance and Repairs.				
Equipment.				
Office,		$1.31		
Stables,		96.43		
Construction,		212.39		
Zoological,		1.60		
Horticultural,		.90		
Small Tools,		19.63		
			$332.26	
Buildings,			22.24	
				354.50
Replacements.				
Equipment.				
Office,		$118.55		
Stables,		430.51		
Construction,		188.72		
Zoological,		5.55		
Horticultural,		7.10		
Small Tools,		183.57		
			$934.00	934.00
Division of Recreation and Entertainment.				
Administration.				
Salary, Director,		$1,600.00		
Salaries and Wages, Other Employees,		300.00		
Printing, Binding, etc.,		4.65		
Communication Service,		87.11		
Transportation Service,		27.70		
Rents and Privileges,		159.50		
Damages,		7.30		
			$2,186.26	
Operation.				
Automobile Service.				
Operating Supplies,	$96.50			
Repairs and Replacements,	176.30			
Other Expenses,	13.56			
		$286.36		
Playgrounds.				
Salaries, Directors and Assistants,	$5,465.18			
Salaries, Caretakers and Janitors,	4,582.47			
Recreational Supplies,	645.16			
Cleaning Supplies,	10.13			
Other Supplies,	173.77			
Other Expenses,	1,302.67			
		12,179.38		
Forward,		$12,465.74	$2,186.26	$81,564.07

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Forward,	$12,465.74	$2,186.26	$81,564.07
Social Centers.			
Salaries, Assistants and Musicians, $1,615.50			
Salaries, Janitors, 630.73			
Miscellaneous Supplies, 7.05			
Miscellaneous Expenses, 377.70			
	2,630.98		
Swimming Pools.			
Salaries and Wages, $2,144.58			
Supplies, 696.44			
Other Expenses, 138.74			
	2,979.76		
Celebrations and Entertainments.			
Independence Day, $190.70			
Band Concerts, 556.25			
	746.95		
		18,823.43	
Maintenance and Repairs.			
Equipment, Recreational,	$4.47		
Equipment, Playgrounds,	1,413.61		
		1,418.08	
Replacements.			
Equipment, Recreational,	$2,013.03		
Equipment, Playgrounds,	233.85		
		2,246.88	
			24,674.65
Total Expense,			$106,238.72
Less Transfers,			*233.10*
			$106,005.62
PUBLIC WORKS, BOARD OF (Schedule 31).			
Administration.			
Salaries and Wages,		$1,858.78	
Stationery and Office Supplies,		9.87	
Communication Service,		104.00	
Other Miscellaneous Expenses and Supplies,		215.00	
			$2,187.65
REFUNDS (Schedule 32).			
Liquor Licenses,		$48,545.43	
Overcharges on Departmental Bills,		532.04	
Rentals, School Halls,		141.19	
Sewer Fees,		2,632.40	
Special Assessments.			
Sidewalks,	$64.50		
Street Watering,	1.20		
		65.70	
Taxes.			
Corporation,	$84.43		
National Bank,	20.79		
		105.22	
Tuitions, School,		142.50	
			$52,164.48

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REGISTRARS OF VOTERS (Schedule 33).

Administration.			
Salaries and Wages,		$10,555.08	
Stationery and Office Supplies,		40.30	
Printing, Binding, etc.,		4,646.53	
Advertising,		310.17	
Communication Service,		37.06	
Transportation Service,		533.71	
Other Miscellaneous Expenses and Supplies,		740.63	
Rents and Privileges,		764.50	
			$17,627.98

REVENUES RECEIVABLE, ABATEMENT OF (Schedule 34).

Abated Bills,			$14,886.80

SCHOOLS (Schedule 35).

General Administration.			
Salaries.			
Superintendent and Assistant Superintendent,	$6,000.00		
Other Employees,	10,662.33		
		$16,662.33	
Stationery and Office Supplies,		805.39	
Printing, Binding, etc.,		540.87	
Advertising,		54.36	
Communication Service,		650.87	
Transportation Service,		35.60	
Other Miscellaneous Expenses and Supplies,		324.00	
Traveling Expenses,		301.49	
Support of Truants,		545.38	
School Census,		455.84	
Repairs and Maintenance of Equipment,		6.65	
Replacement of Equipment,		61.25	
			$20,443.53
Operation, General.			
Storekeeping Service.			
Salary, Storekeeper,	$785.33		
Expenses,	1,936.73		
Replacement of Equipment,	7.35		
			2,729.41
Central High School.			
Administration.			
Salary, Principal,	$3,600.00		
Salaries and Wages, Other Employees,	712.46		
Stationery and Office Supplies,	85.62		
Printing, Binding, etc.,	491.36		
Communication Service,	103.50		
Transportation Service,	.34		
Other Miscellaneous Expenses and Supplies,	43.14		
Traveling Expenses,	46.16		
		$5,082.58	
Forward,		$5,082.58	$23,172.94

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Forward,.....		$5,082.58	$23,172.94
Operation.			
Salaries, Heads of Departments,.....	$13,725.00		
Salaries, Teachers,.....	47,556.17		
Salaries, Miscellaneous,.....	253.43		
Text and Reference Books,.....	3,046.49		
Stationery Supplies,.....	2,358.77		
Materials and Supplies,.....	972.16		
Other Expenses,.....	446.00		
Maintenance and Repairs of Equipment,	26.86		
Replacement of Equipment,.....	272.27		
		68,657.15	
			73,739.73
Technical High School.			
Administration.			
Salary, Principal,.....	$3,600.00		
Salaries, Other Employees,.....	1,342.66		
Stationery and Office Supplies,.....	103.66		
Printing, Binding, etc.,.....	564.90		
Communication Service,.....	84.09		
Transportation Service,.....	27.62		
Traveling Expenses,.....	18.65		
		$5,741.58	
Operation.			
Salaries, Heads of Departments,.....	$18,628.50		
Salaries, Teachers,.....	50,450.84		
Salaries, Miscellaneous,.....	926.51		
Text and Reference Books,.....	1,713.92		
Stationery Supplies,.....	957.41		
Materials and Supplies,.....	3,472.49		
Other Expenses,.....	223.82		
Maintenance and Repairs of Equipment,	159.01		
Replacement of Equipment,.....	234.19		
		76,766.69	
			82,508.27
Evening School of Trades.			
Administration.			
Salary, Principal,.....	$480.00		
Salary, Clerk,.....	149.50		
Printing, Binding, etc.,.....	30.15		
		$659.65	
Operation.			
Salaries, Teachers,.....	$5,460.00		
Salaries, Miscellaneous,.....	107.45		
Materials and Supplies,.....	422.30		
Maintenance and Repairs of Equipment,	24.22		
		6,013.97	
			6,673.62
High School of Commerce.			
Administration.			
Salary, Principal,.....	$3,600.00		
Salaries, Other Employees,.....	836.46		
Stationery and Office Supplies,.....	85.21		
Printing, Binding, etc.,.....	734.13		
Communication Service,.....	57.20		
Transportation Service,.....	3.76		
Traveling Expenses,.....	85.55		
		$5,402.31	
Forward,.....		$5,402.31	$186,094.56

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Forward,		$5,402.31	$186,094.56
Operation.			
Salaries, Heads of Departments,	$5,535.50		
Salaries, Teachers,	44,801.11		
Salaries, Miscellaneous,	1,096.04		
Text and Reference Books,	1,685.26		
Stationery Supplies,	2,902.58		
Materials and Supplies,	2,328.76		
Other Expenses,	808.14		
Maintenance and Repairs of Equipment,	5.39		
Replacement of Equipment,	682.05		
		59,844.83	
			65,247.14
Evening High School.			
Administration.			
Salary, Principal,	$355.00		
Salary, Other Employees,	134.75		
Stationery and Office Supplies,	4.76		
Printing, Binding, etc.,	109.06		
Communication Service,	12.00		
		$615.57	
Operation.			
Salaries, Teachers,	$5,259.50		
Text and Reference Books,	594.25		
Stationery Supplies,	438.22		
Materials and Supplies,	183.71		
Other Expenses,	67.09		
		6,542.77	
			7,158.34
Vocational School.			
Administration.			
Salary, Principal,	$2,340.00		
Salary, Clerk,	728.00		
Stationery and Office Supplies,	19.06		
Communication Service,	65.83		
Transportation Service,	21.76		
Traveling Expenses,	59.05		
		$3,233.70	
Operation.			
Salaries, Teachers,	$9,886.37		
Salaries, Miscellaneous,	61.66		
Text and Reference Books,	109.07		
Stationery Supplies,	106.47		
Materials and Supplies,	4,020.20		
Other Expenses,	66.23		
Maintenance and Repairs of Equipment,	147.59		
Replacement of Equipment,	429.41		
		14,827.00	
			18,060.70
Evening Vocational School.			
Operation.			
Salary, Teacher,	$87.00		
Tuition,	124.79		
		211.79	211.79
Forward,			$276,772.53

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Forward,.....			$276,772.58
Open Air School.			
Operation.			
Salaries, Principal and Teachers,.....	$1,837.50		
Salary, Matron,.....	360.00		
Stationery Supplies,.....	7.27		
Other Supplies,.....	614.24		
		2,819.01	2,819.01
Graded Day Schools.			
Administration.			
Salaries, Supervisors and Principals,....	$61,149.18		
Salaries, Clerical Assistants,.....	600.00		
Stationery and Office Supplies,.....	74.28		
Printing, Binding, etc.,.....	1,640.31		
Communication Service,.....	1,377.81		
Transportation Service,.....	26.53		
Other Miscellaneous Expenses and Supplies,.....	565.02		
		$65,433.08	
Operation.			
Salaries, Teachers,.....	$344,390.26		
Salaries, Matrons,.....	3,000.68		
Salaries, Miscellaneous,.....	438.74		
Transportation of Pupils,.....	2,175.00		
Text and Reference Books,.....	11,671.33		
Stationery Supplies,.....	11,252.76		
Materials and Supplies,.....	14,128.63		
Other Expenses,.....	247.02		
Maintenance and Repairs of Equipment,	221.87		
Replacement of Equipment,.....	352.23		
		387,878.52	
			453,311.60
Kindergartens.			
Operation.			
Salaries, Teachers,.....	$27,387.93		
Supplies,.....	727.82		
Other Expenses,.....	51.00		
		28,166.75	28,166.75
Elementary Evening Schools.			
Administration.			
Salaries, Principals,.....	$752.00		
Salaries, Clerical Assistants,.....	64.00		
Printing, Binding, etc.,.....	32.65		
		$848.65	
Operation.			
Salaries, Teachers,.....	$5,985.25		
Text and Reference Books,.....	100.80		
Stationery Supplies,.....	16.84		
		6,102.89	
			6,951.54
High Schools Lunch.			
Operation.			
Salaries and Wages,.....	$6,001.60		
Supplies,.....	15,080.04		
Other Expenses,.....	398.49		
Maintenance and Replacement of Equipment,.....	25.16		
		21,505.29	21,505.29
			$789,526.72

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Sinking Fund Commissioners (Schedule 36).		
Administration.		
Salary of Treasurer and Clerk,.....	$400.00	
Rents,.....	25.00	
		$425.00
Smoke Inspector (Schedule 37).		
Operation.		
Salaries and Wages,.....	$250.00	
Stationery and Office Supplies,.....	6.00	
Printing, Binding, etc.,.....	10.32	
Other Expenses,.....	21.00	
		$287.32
Soldiers' and Sailors' Benefits (Schedule 38).		
Administration.		
Salary of Secretary,.....	$800.00	
Stationery and Office Supplies,.....	3.40	
Printing, Binding, etc.,.....	5.72	
Communication Service,.....	10.40	
		$819.52
State Aid		
Contributions to Civil War Veterans,.....	$13,575.00	
Contributions to Spanish War Veterans,..	198.00	
		13,773.00
Military Aid.		
Contribution to Civil War Veterans,.....		240.00
Burials.		
Soldiers and Widows,.....	$568.00	
Fees to Burial Agent,.....	24.00	
		592.00
Soldiers' Relief.		
Contributions,.....		6,241.64
		$21,666.16
Soldiers' and Sailors' Graves, Care of (Schedule 39).		
Administration.		
Salaries,.....	$200.00	
Care of Graves,.....	600.00	
		$800.00
Streets and Engineering (Schedule 40).		
Work in Progress (showing incompleted work, sundry assets and liabilities as carried over from previous year).		
Bridge Division,.....	$15,554.52	
Car Tickets,.....	382.00	
Direct Charges, Miscellaneous,.....	43.80	
Highways Division,.....	17,447.60	
Materials and Supplies, Delivered from Stock,.....	183.08	
Materials and Supplies, Delivered to Stores,	*4,253.10*	
Repair Shop,.....	24.10	
Sewer Division,.....	2,337.86	
Sidewalks and Curbing,.....	19,736.66	
Small Tools,.....	382.00	
Stables and Yards,.....	1,108.09	
Wood Paving Blocks,.....	355.15	
		$53,301.76

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Completed Work.			
Bridge Construction,.....		$25,845.07	
Bridge Maintenance.			
Assessable,.....	$186.77		
City's Proportion,.....	10,797.16		
		10,983.93	
Collection of Ashes,.....		91,613.44	
Collection of Garbage,.....		49,747.66	
Forestry Operation.			
Assessable,.....	$481.08		
City's Proportion,.....	17,942.99		
		18,424.07	
Highways Construction.			
Assessable,.....	$40,742.75		
City's Proportion,.....	142,626.43		
		183,369.18	
Highways Maintenance.			
Assessable,.....	$13,018.82		
City's Proportion,.....	134,150.93		
		147,169.75	
Incinerator Contract,.....		3,312.40	
Mayor's and Municipal Automobile,.....		3,226.52	
Outside Work,.....		4,142.77	
Repair Shop,.....		721.34	
Sewers Construction.			
Assessable,.....	$169.37		
City's Proportion,.....	33,608.50		
		33,777.87	
Sewers Maintenance.			
Assessable,.....	$10,089.97		
City's Proportion,.....	17,932.76		
		28,022.73	
Sidewalks and Curbing, Construction.			
Assessable,.....	$42,248.42		
City's Proportion,.....	18,043.99		
		60,292.41	
Sidewalks and Curbing, Maintenance.			
Assessable,.....	$1,589.81		
City's Proportion,.....	2,385.80		
		3,975.61	
Stables and Yards,.....		11,902.53	
Street Cleaning.			
Assessable,.....	$560.49		
City's Proportion,.....	122,122.13		
		122,682.62	
Street Lighting.			
Street and Bridge Contract,.....	$128,593.43		
Other Expense,.....	4,051.63		
		132,645.06	
Street Oiling.			
Assessable,.....	$1,663.38		
City's Proportion,.....	23,134.52		
		24,797.90	
Street Sprinkling,.....		11,489.91	
Miscellaneous Expenditures Not Chargeable to Department,.....		3,801.54	
			$971,444.31
Forward,.....			$971,444.31

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Forward,			$971,443.31
Work in Progress, Direct Charges.			
Asphalt Plant Expense,		$1,940.81	
Concrete Mixer Expense,		5.57	
Contracts and Other Charges,		4,394.65	
Hired Equipment,		261.46	
Materials and Supplies, Delivered from Stock,		989.31	
Materials and Supplies Used on Work,		509.24	
Motor Truck Expense,		1,176.27	
Roller Expense,		88.94	
Stable Expense,		266.23	
Steam Shovel Expense,		9.79	
Steam Wagon Expense,		6.26	
			3,383.65
Miscellaneous Expenditures (Undistributed).			
Adjustments,		$114.63	
Materials and Supplies, Delivered in Stores,		593.05	
Small Tools,		3,525.66	
Unpaid Bills, 1915,		154.84	
Use of Equipment and Plant,		4,717.54	
			7,690.38
Total Expense,			$982,518.32
Less Transfers and Refunds,			50,969.17
			$931,549.15
TAXES (Schedule 41).			
County Tax,		$150,706.77	
National Bank Tax,		18,608.68	
State Tax,		296,240.00	
			$465,555.45
WEIGHTS AND MEASURES, SEALER OF (Schedule 42).			
Administration.			
Salary of Sealer,		$525.00	
Stationery and Office Supplies,		1.00	
Printing, Binding, etc.,		10.05	
Advertising,		2.25	
Communication Service,		1.54	
Transportation Service,		117.83	
Other Miscellaneous Expenses and Supplies,		80.13	
			$737.80
Operation.			
Salaries, Deputies and Inspector,		$1,445.97	
Automobile Service.			
Operating Supplies,	$121.05		
Repairs and Replacements,	147.47		
Other Expenses,	103.00		
		371.52	
Supplies Not Elsewhere Provided for,		22.43	
			1,839.92
			$2,577.72
WINCHESTER PARK FIRE STATION REMODELING (Schedule 43).			
Construction and Remodeling of Building,			$9,174.48

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Wires, Inspector of (Schedule 44).		
Operation.		
Salary, Inspector,.....	$350.00	
Other Expenses,.....	47.69	
		$397.69
Maintenance and Repairs.		
Cable Supplies,.....	$1,813.83	
Other Supplies,.....	555.71	
		2,369.54
		$2,767.23
Workmen's Compensation (Schedule 45).		
Damages and Compensation Paid,.....		$1,142.25
Less Refunds,.....		*86.70*
		$1,055.55

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EXPENSE

INCURRED IN YEAR ENDED NOVEMBER 30, 1916.

WATER FUND.

(Schedule J).

WATER DEPARTMENT.		
Operating Expense.		
Commercial Expense,.....	$12,429.87	
Distribution Expense,.....	35,979.25	
General Expense,.....	29,981.10	
Source of Supply,.....	32,657.74	
Transmission Expense,.....	2,886.75	
Undistributed Expense,.....	11,434.81	
		$125,369.52
Renewal Work.		
Cost of Sales (Assessable),.....	$53,731.83	
Street Work,.....	2,370.09	
		56,101.92
Miscellaneous Expense.		
Interest on Bonded Indebtedness,.....		79,965.00
Depreciation Charge,.....		36,000.00
Abatement of Bills Receivable.		
Abated in 1916,.....	$1,372.62	
Reserve for Abatement of Outstanding Bills,	205.45	
		1,578.07
Total Expense,.....		$299,014.51
Less Refunds,.....		44.67
		$298,969.84

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STORES.

Inventory as of November 30, 1916.

(Schedule K.)

GENERAL FUND:		
City Property Committee—Schools,	$1,404.09	
Streets and Engineering Department,	53,612.42	
		$55,016.51
WATER FUND:		
Water Department,		98,182.46
		$153,198.97

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ESTIMATED REVENUE.

For the Fiscal Year Ended November 30, 1916.

	Estimate for Year	Accruals for Year	Excess over Estimate
Additional Taxes, 1915,	$15,629.42	$15,629.42	.....
Business Taxes,	196,947.56	235,113.74	$38,166.18
Fees,	7,250.00	8,603.68	1,353.68
Fines,	8,500.00	8,356.67	*143.33*
Forfeits,	.....	200.00	200.00
Interest,	33,000.00	35,282.62	2,282.62
Licenses,	169,600.00	189,367.18	19,767.18
Permits,	41,000.00	49,890.07	8,890.07
Privileges,	16,494.16	16,494.16	.....
Rents,	17,000.00	21,029.54	4,029.54
Special Assessments,	85,000.00	101,701.86	16,701.86
Subventions and Grants,	11,578.33	11,578.33	.....
City Property Committee:			
Municipal Group Buildings,	.....	1,516.00	1,516.00
Schools,	.....	926.91	926.91
Police Department,	2,900.00	1,572.56	*1,327.44*
Fire Department,	2,200.00	320.00	*1,880.00*
Health Department,	7,000.00	20,356.31	13,356.31
Streets and Engineering Department,	45,500.00	55,012.22	9,512.22
Charities Department,	25,000.00	37,194.32	12,194.32
Soldiers' and Sailors' Benefits,	14,000.00	14,956.00	956.00
Education,	52,500.00	57,906.55	5,406.55
Recreation,	3,500.00	2,790.25	*709.75*
Water Department,	179,465.00	179,467.88	2.88
Other Revenues,	14,653.02	15,051.28	898.26
Re-Appropriations,	73,400.04	73,400.04	.....
	$1,022,117.53	$1,153,717.59	$131,600.06

NOTE.—Figures in italics indicate amount under estimate.

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SINKING FUNDS.

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REPORT

OF THE

COMMISSIONERS OF THE SINKING FUNDS

SPRINGFIELD, MASS., November 20, 1916.

To His Honor, the Mayor, and the City Council:—

GENTLEMEN:—The Commissioners of the Sinking Funds of the City of Springfield have the honor to report the condition of the sinking funds, established to meet indebtedness of the city, and the income accruing to the same for the year ending November 17, 1916, as follows:—

WATER WORKS.

$275,000, 3½% and 4% bonds, 1920 and 1923.

RECEIPTS.

Amount on hand at last report,	$109,949.33	
Surplus balance from the Water Department for 1915, received December 17, 1915,	17,814.25	
Interest on bank balances,	105.91	
Interest on investments,	4,950.00	
	$132,819.49	
Accrued interest paid on bonds—charged off,	100.00	
		$132,719.49

INVESTMENTS.

City of Springfield bonds,	$59,000.00	
Municipal bonds,	43,000.00	
Railroad bonds,	26,000.00	
Cash in bank at interest,	4,719.49	
		$132,719.49

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HIGH SCHOOL LOAN.

Loan $370,000, 4% bonds, January 1, 1897, 20 years.

RECEIPTS.

Amount on hand at last report,		$349,070.69	
Appropriation of City Council received November 13, 1916,		6,000.00	
Interest on bank balances,		288.41	
Interest on investments,		11,080.08	
		$366,439.18	
Accrued interest paid on bonds—charged off	$508.22		
Premium paid on bonds—charged off	227.58		
		735.80	
			$365,703.38

INVESTMENTS.

City of Springfield bonds,	$104,000.00	
Municipal bonds,	69,600.00	
Railroad bonds,	10,000.00	
Street Railway bonds,	23,000.00	
Certificates of deposit,	116,000.00	
Cash in bank at interest,	43,103.38	
		$365,703.38

SCHOOL LOAN, 1900.

Loan $145,000, 3% and 3½% bonds, December 1, 1899, and June 1, 1900, 20 years.

RECEIPTS.

Amount on hand at last report,	$110,816.75	
Appropriation of City Council received November 13, 1916,	5,400.00	
Interest on bank balances,	89.50	
Interest on investments,	3,784.00	
		$120,090.25

INVESTMENTS.

City of Springfield bonds,	$66,500.00	
Municipal bonds,	23,250.00	
Railroad bonds,	19,000.00	
Street Railway bonds,	500.00	
Cash in bank at interest,	10,840.25	
		$120,090.25

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SEWER LOAN, 1900.

Loan $142,000, 3% bonds, June 1, 1900, 30 years.

RECEIPTS.

Amount on hand at last report,	$64,726.43	
Appropriation of City Council received November 13, 1916,	3,000.00	
Interest on bank balances,	53.50	
Interest on investments,	2,295.00	
		$70,074.93

INVESTMENTS.

City of Springfield bonds,	$36,000.00	
Municipal bonds,	16,000.00	
Railroad bonds,	8,000.00	
Street Railway bonds,	5,300.00	
Cash in bank at interest,	4,774.93	
		$70,074.93

SCHOOL LOAN, 1901.

Loan $125,000, 3½% bonds, September 1, 1901, 20 years.

RECEIPTS.

Amount on hand at last report,	$89,761.05	
Appropriation of City Council received November 13, 1916,	4,900.00	
Interest on bank balances,	118.38	
Interest on investments,	3,575.84	
	$98,355.27	
Accrued interest paid on bonds—charged off,	83.75	
		$98,271.52

INVESTMENTS.

City of Springfield bonds,	$55,000.00	
Municipal bonds,	25,000.00	
Railroad bonds,	10,000.00	
Cash in bank at interest,	8,271.52	
		$98,271.52

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SCHOOL LOAN, 1902.

Loan $55,000, 3½% bonds, October 1, 1902, 20 years.

RECEIPTS.

Amount on hand at last report,		$35,177.09	
Appropriation of City Council received November 13, 1916,		2,100.00	
Interest on bank balances,		56.75	
Interest on investments,		1,347.00	
		$38,680.84	
Accrued interest paid on bonds—charged off,	$111.17		
Premium paid on bonds—charged off,	30.00		
		141.17	
			$38,539.67

INVESTMENTS.

City of Springfield bonds,	$26,500.00	
Municipal bonds,	6,000.00	
Railroad bonds,	5,000.00	
Cash in bank at interest,	1,039.67	
		$38,539.67

PUBLIC PARK LOAN, 1903.

Court Square Extension.

Loan $125,000, 3½% bonds, June 1, 1903, 20 years.

RECEIPTS.

Amount on hand at last report,		$81,006.81	
Appropriation of City Council received November 13, 1916,		4,700.00	
Interest on bank balances,		107.12	
Interest on investments,		2,752.50	
Addition of difference between price paid and par value of bonds bought during the year,		64.40	
		$88,630.83	
Accrued interest paid on bonds—charged off,	$82.24		
Premium paid on bonds—charged off,	5.44		
		87.68	
			$88,543.15

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INVESTMENTS.

City of Springfield bonds,	$39,000.00	
Municipal bonds,	9,000.00	
Railroad bonds,	19,000.00	
Street Railway bonds,	8,700.00	
Cash in bank at interest,	12,843.15	
		$88,543.15

SCHOOL LOAN, 1903.

Loan $40,000, 3½% bonds, September 1, 1903, 20 years.

RECEIPTS.

Amount on hand at last report,	$24,705.63	
Appropriation of City Council received November 13, 1916,	1,600.00	
Interest on bank balances,	52.51	
Interest on investments,	875.00	
		$27,233.14

INVESTMENTS.

City of Springfield bonds,	$13,500.00	
Municipal bonds,	4,000.00	
Railroad bonds,	3,000.00	
Street Railway bonds,	2,000.00	
Cash in bank at interest,	4,733.14	
		$27,233.14

SCHOOL LOAN, 1905.

Technical High School and White Street Grammar School.

Loan $396,000, 3½% bonds, January 1, 1905, 20 years.

RECEIPTS.

Amount on hand at last report,		$196,361.29	
Appropriation of City Council received November 13, 1916,		15,000.00	
Interest on bank balances,		83.72	
Interest on investments,		6,710.00	
		$218,155.01	
Accrued interest paid on bonds—charged off,	$28.33		
Premium paid on bonds—charged off,	408.00		
		436.33	
			$217,718.68

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INVESTMENTS.

City of Springfield bonds,	$146,000.00	
Municipal bonds,	36,000.00	
Railroad bonds,	19,000.00	
Cash in bank at interest,	16,718.68	
		$217,718.68

SCHOOL LOAN, 1906.

Loan $207,000, 4% bonds, November 1, 1906, 20 years.

RECEIPTS.

Amount on hand at last report,		$78,738.88	
Appropriation of City Council received November 13, 1916,		7,500.00	
Interest on bank balances,		84.25	
Interest on investments,		2,705.00	
		$89,028.13	
Accrued interest paid on bonds—charged off,	$81.58		
Premium paid on bonds—charged off,	354.25		
		435.83	
			$88,592.30

INVESTMENTS.

City of Springfield bonds,	$61,000.00	
Municipal bonds,	6,000.00	
Railroad bonds,	16,000.00	
Cash in bank at interest,	5,592.30	
		$88,592.30

STREET, SCHOOL AND SEWER LOAN, 1907.

Loan $125,000, 4% bonds, November 1, 1907, 10 years.

RECEIPTS.

Amount on hand at last report,		$106,075.43	
Appropriation of City Council received November 13, 1916,		11,000.00	
Interest on bank balances,		100.00	
Interest on investments,		4,325.83	
		$121,501.26	
Accrued interest paid on bonds—charged off,	$241.66		
Premium paid on bonds—charged off,	138.00		
		379.66	
			$121,121.60

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INVESTMENTS.

City of Springfield bonds,	$54,000.00	
Municipal bonds,	43,000.00	
Railroad bonds,	11,000.00	
Cash in bank at interest,	13,121.60	
		$121,121.60

RECAPITULATION.

REVENUE FROM ALL SOURCES.

Surplus balance from Water Department, received December 17, 1915,		$17,814.25	
Appropriation of City Council received November 13, 1916,		61,200.00	
Interest on bank balances,		1,140.05	
Interest on investments,		44,400.25	
Addition of difference between price paid and par value of bonds bought during the year,		64.40	
Total revenue,		$124,618.95	
Amount on hand at last report,		1,246,389.38	
		$1,371,008.33	
Accrued interest paid on bonds—charged off,	$1,236.95		
Premium paid on bonds—charged off,	1,163.27		
		2,400.22	
			$1,368,608.11

INVESTED AS FOLLOWS:—

City of Springfield bonds,	$660,500.00		
Bonds and notes—Municipal	280,850.00		
Railroad bonds,	146,000.00		
Street Railway bonds,	39,500.00		
Certificates of deposit,	116,000.00		
		$1,242,850.00	
Cash in bank at interest,		125,758.11	
			$1,368,608.11

The Commissioners of the Sinking Funds would recommend that during the next year all school funds be consolidated into one fund.

This consolidation can be brought about at this time better than ever before because the High School Loan Fund, totaling $370,000, matures and is closed out on January 1st, next.

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By consolidating the remaining six school funds, there will be left the Water Works, Sewer, Public Parks, and the Sundry Purpose 1907 Loan Funds, which reduces the number of funds from eleven to five, making it more advantageous for keeping the money invested.

Respectfully submitted,

ROBERT O. MORRIS,
A. WILLARD DAMON,
A. B. WALLACE,
Commissioners of the Sinking Funds,

ELIPHALET T. TIFFT, *Treasurer.*

November 21, 1916.

MESSRS. ROBERT O. MORRIS, ANDREW B. WALLACE AND A. WILLARD DAMON, Commissioners of the Sinking Funds, Springfield, Mass.

DEAR SIRS:—I have examined the report of the Treasurer of your Sinking Funds, as rendered for the current fiscal year, and find it correct, with securities in his possession amounting to one million, two hundred and forty-two thousand, eight hundred and fifty dollars ($1,242,850) and cash in bank amounting to one hundred and twenty-five thousand, seven hundred and fifty-eight dollars and eleven cents ($125,758.11), a total of one million, three hundred and sixty-eight thousand, six hundred and eight dollars and eleven cents ($1,368,608.11).

Very truly yours,

WM. G. McINTYRE,
City Auditor.

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REPORT OF THE MANAGERS

OF THE

DAVID P. SMITH FUND

FOR THE YEAR ENDING DECEMBER 31, 1916.

To His Honor, the Mayor, and the City Council:—

The managers present herewith their fourth report, which deals with the expenditure of the income from the fund for the past year.

Reference is made to the first report published in the Municipal Register of 1914 for a history of the fund, its purpose and method of distribution.

The treasurer's summary is as follows:—

Balance in fund January 1, 1916		$3.65
Income received during 1916		1,231.65
Total		$1,235.30
Expended for aid of sick children	$925.42	
Union Trust Company for services	100.00	
		1,025.42
Balance on hand January 1, 1917		$209.88

Over one hundred children received medical or surgical attention during the past year, such aid being given at a time when physical defects were corrected to save future suffering and prevent the possibility of certain diseases becoming chronic.

Many of the children, who were eligible as beneficiaries of the fund, were brought to the attention of the managers' agents by the medical inspectors and nurses in the public schools.

Miss Annie I. Gerry, Secretary of the Union Relief Association and an authorized agent of this fund, investigated and presented most of

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the cases, and has been very thorough and painstaking in her work, and where possible has encouraged the family to assume part of the burden.

Respectfully submitted,

FRANK E. STACY, *Mayor*,
WILLIAM J. QUILTY, *Chief of Police*,
ELIPHALET T. TIFFT, *City Treasurer*,
Managers.

ELIPHALET T. TIFFT,
Treasurer and Secretary.

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CITY TREASURER'S REPORT.

NOVEMBER 30, 1916.

With Certificate of City Auditor Attached.

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CITY TREASURER'S REPORT

CITY OF SPRINGFIELD, MASS.
CITY TREASURER'S OFFICE, December 26, 1916.

To His Honor, the Mayor, and the City Council:—

I have the honor to submit herewith the annual report of the City Treasurer, showing the operation and condition of the City Treasury and Sinking Funds; and presenting other information relative to finances of the City of Springfield for the fiscal year ending November 30, 1916.

The total operations of the City Treasury for the fiscal year 1916 are summarized as follows:—

CASH RECEIPTS.		CASH PAYMENTS.	
From Revenue sources,	$7,253,845.23	For Revenue purposes, as per Treasury Warrants,	$7,227,141.57
From Non-Revenue sources,	661,197.22	For Non-Revenue purposes, as per Treasury Warrants,	286,181.51
	$7,915,042.45		$7,513,323.08
Cash balance December 1, 1915,	283,740.36	Cash on hand November 30, 1916,	685,459.73
	$8,198,782.81		$8,198,782.81

The following statement gives more detail in reference to receipts and payments.

REVENUE CASH RECEIPTS.

From Collector:—	
Taxes of 1914,	$1,440.33
Taxes of 1915,	758,718.69
Amount carried forward,	$760,159.02

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Amount brought forward,	$760,159.02	
Taxes of 1916,	2,830,048.22	
Excise Tax, Springfield Street Railway Company,	17,999.27	
Street Watering Taxes of 1915,	7,396.62	
Street Watering Taxes of 1916,	28,048.02	
Water sales,	411,341.73	
Water, miscellaneous sales,	52,788.29	
Department bills collected,	216,858.85	
Interest on taxes, bank balances and department bills,	23,145.47	
Fees, official,	3,801.64	
Licenses, theater, circus, dance, elevator, etc.,	2,216.50	
Licenses granted by the Police Commissioners,	6,123.00	
Licenses, Sunday theater,	6,984.00	
Rentals, school halls, bath houses, etc.,	3,507.50	
		$4,370,418.13
From the Commonwealth of Massachusetts:—		
Corporation tax, balance of 1915,	$11,739.65	
Corporation tax, on account of 1916 (business),	146,872.24	
Corporation tax on account of 1916 (public service),	58,786.99	
National Bank tax of 1916,	6,084.89	
Reimbursement of State and Military aid paid in 1915,	14,012.00	
Reimbursement of Soldiers' and Sailors' burials in 1915,	944.00	
Vocational School, State appropriation,	6,466.54	
		244,906.31
From County Treasurer, Dog fund of 1915 for City Library Association,	$5,111.79	
Premium on $640,000 school and water loan bonds issued November 1, 1916,	23,366.40	
Amounts carried forward,	$28,478.19	$4,615,324.44

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Amounts brought forward,	$28,478.19	$4,615,324.44
Interest on Treasurer's bank balances and accrued interest on bonds,	13,266.87	
High Schools Lunch Fund, sale of lunches,	22,064.94	
Licenses collected by City Treasurer:—		
Liquor,	164,762.00	
Liquor, from transfers,	7,280.18	
Sunday sales, Common Victuallers and Innholders,	1,460.00	
Milk,	409.50	
Hawkers and peddlers,	100.00	
All others,	13.00	
License Commissioners, recording licenses,	483.00	
Auditorium rentals,	10,765.00	
Organ rentals,	400.00	
City Clerk's official fees,	2,602.60	
Sealer's fees,	583.64	
Police Uniform cloth,	102.24	
Sundry departmental receipts, estimated revenue,	23,568.92	
Sundry departmental receipts, refunds,	12,180.71	
		288,520.79
Total receipts,		$4,903,845.23
Temporary loans in anticipation of revenue,		2,350,000.00
Cash on hand December 1, 1915,		57,125.56
		$7,310,970.79

REVENUE CASH PAYMENTS.

Payments as per Treasury Warrants, Nos. 88, 89 and 90 of 1915, and Nos. 1 to 89 inclusive, of 1916,	$7,227,141.57	
Cash on hand November 30, 1916,	83,829.22	
		$7,310,970.79

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NON-REVENUE CASH RECEIPTS.

Funded debt:—		
Westfield Little River Water loan, 20 year coupon or registered 3½% serial bonds, dated November 1, 1916, outside statutory limit, Act of 1913,	$100,000.00	
School loan 1916, serial bonds, 20 year registered 4%, dated November 1, 1916, within statutory limit,	540,000.00	
From Collector:—		
Hillman Street Extension, betterments,	20,447.22	
Collections by Treasurer:—		
High School of Commerce,	750.00	
Total receipts,		$661,197.22
Cash on hand December 1, 1915,		226,614.80
		$887,812.02

NON-REVENUE CASH PAYMENTS.

Payments as per Treasury Warrants, Nos. 88, 89 and 90 of 1915, and Nos. 1 to 89, inclusive, of 1916,	$286,181.51	
Cash on hand November 30, 1916,	601,630.51	
		$887,812.02

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TEMPORARY LOANS.

Made in Anticipation of Revenue and Paid during the Year.

1915, Dec.	16—	$600,000 due April 7, 1916, Kidder, Peabody & Co., Boston, discounted at	1.94%
1916. Feb.	14—	$150,000 due April 4, 1916, Springfield Safe Deposit & Trust Co., discounted at	0.00%
March	17—	$1,000,000 due November 9, 1916, Estabrook & Co., Boston, discounted at	2.83%
July	12—	$600,000 due November 10, 1916, Morgan & Bartlet, New York, discounted at	3.545%
		$2,350,000	

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CITY OF SPRINGFIELD, MASS.

DECEMBER 1, 1916

STATEMENT OF THE BONDED DEBT AND SINKING FUNDS

LOANS. NAME AND DESCRIPTION.	Date of Issue.	INTEREST. Rate %	INTEREST. Payable.	PRINCIPAL. When Due.	PRINCIPAL. Outstanding.	Sinking Funds.
City Hall Loan, 1907, Reg	1907	4	J. & J.	July 1, 1908 to July 1, 1927. $9,000 even years, $8,000 odd years.	$93,000.00	
Dwight and Water Streets, Railroad Underpass Loan, Cou	1913	4	May & N.	$14,000 due Nov. 1, 1914 to Nov. 1, 1923. $13,000 due Nov. 1, 1924 to Nov. 1, 1943.	358,000.00	
Dwight and Water Streets, Railroad Underpass Loan, Act of 1913	1915	4	May & N.	Nov. 1, 1916 to Nov. 1, 1935. $10,000 annually.	190,000.00	
Dwight, Willow and Hillman Street Extension.	1915	4	May & N.	Nov. 1, 1916 to Nov. 1, 1925. $7,000 annually..	63,000.00	
Fire and Police Buildings Loan, Reg	1910	4	A. & O.	Oct. 1, 1911 to Oct. 1, 1930. $17,000 annually...	238,000.00	
Fulton Street Loan	1914	4½	May & N.	$20,000 each yr., Nov. 1915 to 1934	360,000.00	
Locust Street Extension, Reg	1911	4	A. & O.	Oct. 1, 1912 to Oct. 1, 1921. $2,000 annually....	10,000.00	
Municipal Building Loan, Act of 1909, Cou. or Reg.	1909	3½	May & N.	Nov. 1, 1910 to Nov. 1, 1949. $15,000 annually..	495,000.00	
Municipal Building Loan, Act of 1909, Cou. or Reg.	1910	4	May & N.	Nov. 1, 1911 to Nov. 1, 1950. $10,000 annually..	340,000.00	
Municipal Building Loan, Act of 1912, Cou. or Reg.	1912	4	May & N.	$14,000 due Nov. 1, 1913 to 1917 inc. and $13,000 Nov. 1, 1918 to 1952 inc	469,000.00	
Municipal Building Loan, Act of 1912	1914	4	May & N.	$5,000 each yr., Nov. 1915 to 1954	190,000.00	
Municipal Loan, Reg	1913	4¼	May & N.	$6,500 due Nov. 1, 1914 and $6,000 Nov. 1, 1915 to Nov. 1, 1918; $5,000, Nov. 1, 1919 to Nov. 1, 1923	37,000.00	
North Street Extension, Reg	1909	4	A. & O.	Oct. 1, 1910 to Oct. 1, 1919. $20,000 annually...	60,000.00	
Public Parks, Reg	1903	3½	Jne. & D.	June 1, 1923	125,000.00	$88,543.15
Public Buildings Loan, Reg	1911	4	A. & O.	Oct. 1, 1912 to Oct. 1, 1931. $16,000 annually...	240,000.00	
River Front Loan, Reg	1908	4	A. & O.	Oct. 1, 1909 to Oct. 1, 1918. $2,000 annually....	4,000.00	
School Bonds, 1903, Cou. or Reg	1903	3½	M. & S.	September 1, 1923	40,000.00	27,233.14
" " Commercial High, Cou.	1913	4	May & N.	$25,000 due Nov. 1, 1914 to Nov. 1, 1933	425,000.00	
" " Commercial High, Cou.	1914	4½	May & N.	$8,000 Nov. 1, 1915 to 1924. $7,000 Nov. 1, 1925 to 1934.	134,000.00	
" " Commercial High, Cou.	1915	4	May & N.	$18,000 Nov. 1, 1916 to 1925. $17,000 Nov. 1, 1926 to 1935.	332,000.00	
" " High, Reg	1897-8	4	J. & J.	January 1, 1917	370,000.00	365,703.38
" " Reg.	1897	4	J. & J.	July 1, 1898 to 1917. $4,500 annually	4,500.00	
" "	1898	3½	J. & J.	July 1, 1899 to 1918. $4,200 annually	8,400.00	
" " Kensington Avenue, 1908, Reg...	1908	4	A. & O.	Oct. 1, 1909 to Oct. 1, 1928. $5,500 annually....	66,000.00	

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STATEMENT OF THE BONDED DEBT AND SINKING FUNDS—*Continued.*

LOANS. NAME AND DESCRIPTION.	Date of Issue.	INTEREST. Rate %	INTEREST. Payable.	PRINCIPAL. When Due.	PRINCIPAL. Outstanding.	Sinking Funds.
School Bonds, Lincoln, Reg.	1909	4	A. & O.	Oct. 1, 1910 to Oct. 1, 1929. $5,000 annually.	65,000.00	
" " Reg.	1898	3½	J. & J.	July 1, 1899 to 1918. $4,500 annually.	9,000.00	
" " 1900, Reg.	1900	3½	Jne. & D.	December 1, 1919.	20,000.00	120,090.25
" " 1900, Cou. or Reg.	1900	3	Jne. & D.	June 1, 1920.	125,000.00	
" " 1901, Reg.	1901	3½	Mch. & S.	September 1, 1921.	125,000.00	98,271.52
" " 1902, "	1902	3½	A. & O.	October 1, 1922.	55,000.00	88,589.67
" Technical High, Reg.	1905-6	3½	J. & J.	January 1, 1925.	342,000.00	217,718.68
" White Street, Reg.	1905	3½	J. & J.	January 1, 1925.	54,000.00	
" Loan, 1906, Cou. or Reg.	1906	4	May & N.	November 1, 1926.	207,000.00	88,592.30
" Buckingham, Reg.	1913	4¼	May & N.	$11,000 due Nov. 1, 1914 to Nov. 1, 1933.	187,000.00	
" Reg.	1913	4¼	May & N.	$2,000 due Nov. 1, 1914 to 1932, and $1,500 Nov. 1, 1933.	33,500.00	
" Bonds, 1916, Reg.	1916	4	M. & N.	Nov. 1, 1917 to Nov. 1, 1936. $27,000 annually.	540,000.00	
School and Fire Loan.	1914	4½	May & N.	$13,000 Nov. 1915 to 1924. $12,000 Nov. 1925 to 1934.	224,000.00	
Sewer Bonds, Cou. or Reg.	1900	3	Jne. & D.	June 1, 1930.	142,000.00	70,074.98
" " 1901, Reg.	1901	3½	Mch. & S.	Sept. 1, 1902 to 1926. $1,000 annually.	10,000.00	
" Loan, 1904, "	1904	3½	F. & A.	Aug. 1, 1905 to 1924. $2,000 annually.	16,000.00	
" " 1908, "	1908	4	A. & O.	Oct. 1, 1909 to Oct. 1, 1928. $2,500 annually.	30,000.00	
" " Reg.	1913	4	May & N.	$2,000 due Nov. 1, 1914 to Nov. 1, 1933.	44,000.00	
Street, School and Sewer Loan, 1907, Reg.	1908	4	May & N.	November 1, 1917.	125,000.00	121,121.60
Water Street Extension and Rifle Range, 1908, Reg.	1908	4	A. & O.	Oct. 1, 1909 to Oct. 1, 1918. $5,000 annually.	10,000.00	
Water Bonds. Coupon.	1890	3½	A. & O.	October 1, 1920.	125,000.00	132,719.49
" " "	1898	4	A. & O.	October 1, 1923.	150,000.00	
" " Little River, Cou. or Reg.	1907	4	J. & J.	Jan. 1, 1910 to Jan. 1, 1936. $10,000 annually.	200,000.00	
" " Little River, Cou. or Reg.	1908	4	J. & J.	Jan. 1, 1911 to Jan. 1, 1937. $10,000 annually.	210,000.00	
" " Little River, Cou. or Reg.	1909	3½	J. & J.	Jan. 1, 1912 to Jan. 1, 1938. $40,000 annually.	880,000.00	
" " Little River, Cou. or Reg.	1910	3½	J. & J.	Jan. 1, 1913 to Jan. 1, 1939. $14,000 annually.	322,000.00	
" " Little River, Cou. or Reg.	1913	4¼	May & N.	$10,000 due Nov. 1, 1914 to Nov. 1, 1933.	220,000.00	
" " Little River, Cou. or Reg.	1916	3½	M. & N.	Nov. 1, 1917 to Nov. 1, 1936. $5,000 annually.	100,000.00	
Totals					$9,222,400.00	$1,368,608.11

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STATEMENT OF FUNDED DEBT AND SINKING FUNDS, 1916.

SHOWING DEBT AND SINKING FUNDS AT BEGINNING AND CLOSE OF FISCAL YEAR, AND ALL TRANSACTIONS DURING THAT PERIOD.

	Total Debt.	DIVISIONS OF TOTAL INDEBTEDNESS.			Net Debt.	Net Debt Exclusive of Water Debt.	Net Debt Within Limit.	Net Water Debt.	SINKING FUNDS.	
		Debt Within Limit.	Debt Outside Limit.	Water Debt.					General Sinking Fund	Water Sinking Fund
December 1, 1915.....	$8,950,600.00	$4,643,600.00	$2,116,000.00	$2,191,000.00	$7,704,210.62	$5,623,159.95	$3,507,159.95	$2,081,050.67	$1,136,440.05	$109,949.33
Bonds paid in 1916.....	368,200.00	214,200.00	70,000.00	84,000.00	.....	.....	.....	.....	.....	.....
Bonds issued in 1916.....	640,000.00	540,000.00	.....	100,000.00	.....	.....	.....	.....	.....	.....
Appropriations for General Sinking Funds.....	.....	.....	.....	.....	.....	.....	.....	.....	61,200.00	.....
Surplus in Water Dept., 1915, available for Sinking Fund.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17,814.25
Earnings in General Sinking Funds.....	.....	.....	.....	.....	.....	.....	.....	.....	38,248.57	.....
Earnings in Water Sinking Fund.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,955.91
Increase in General and Water Sinking Funds...	.....	.....	.....	.....	.....	.....	.....	.....	99,448.57	22,770.16
Increase in Total and Net City Debt.....	271,800.00	.....	.....	.....	149,581.27	.....	.....	.....	.....	.....
Increase in Debt Within Limit and Net Debt Within Limit.....	.....	325,800.00	.....	.....	.....	.....	226,351.43	.....	.....	.....
Increase in Water Debt and Net Debt.....	.....	.....	.....	16,000.00	.....	.....	.....	.....	.....	.....
Decrease in Debt Outside Limit and Net Water Debt.....	.....	.....	70,000.00	.....	.....	.....	.....	6,770.16	.....	.....
Increase of Net Debt Exclusive of Water Debt...	.....	.....	.....	.....	.....	156,351.43	.....	.....	.....	.....
November 30, 1916.....	$9,222,400.00	$4,969,400.00	$2,046,000.00	$2,207,000.00	$7,853,791.89	$5,779,511.38	$3,733,511.38	$2,074,280.51	$1,235,888.62	$132,719.49

Outstanding Bonds secured by Sinking Funds, $2,005,000.00.
Outstanding Serial Bonds.....7,217,400.00.
Total City Debt.....$9,222,400.00.

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PURPOSES FOR WHICH OUTSTANDING BONDED DEBT WAS CREATED.

Water Works (exempt),			$2,207,000.00
Schoolhouses:—			
Central High,	$370,000.00		
Technical High,	462,000.00		
High School of Commerce,	891,000.00		
Other Schools,	1,727,000.00		
		$3,450,000.00	
Abbe avenue overhead pass,		62,000.00	
Dwight and Water streets railroad underpasses (exempt),		548,000.00	
Dwight-Willow and Hillman streets extensions,		63,000.00	
Fire department buildings,		108,080.00	
Fire and Police headquarters,		238,000.00	
Fulton street widening,		360,000.00	
Health department hospital,		13,500.00	
Locust street extension,		10,000.00	
Laundry and heating plant, almshouse,		29,320.00	
Municipal heating plant,		58,500.00	
Municipal group, buildings (exempt),		1,494,000.00	
Municipal group, land,		93,000.00	
North street extension,		60,000.00	
Parks and buildings,		152,000.00	
River front (exempt),		4,000.00	
Sewers,		262,000.00	
Water street extension,		10,000.00	
Debt exclusive of water debt,			7,015,400.00
Total debt,			$9,222,400.00

The above bonded debt is issued at the following rates of interest:—

$267,000.00 at 3 per cent. per annum.
2,726,400.00 at 3½ per cent. per annum.
5,033,500.00 at 4 per cent. per annum.
477,500.00 at 4¼ per cent. per annum.
718,000.00 at 4½ per cent. per annum.

Total, $9,222,400.00 at an average interest rate of 3.875 per cent. per annum.

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AMOUNT OF DEBT CITY CAN INCUR WITHIN STATUTORY LIMIT.

2½ per cent. of $188,717,804, average valuation for three preceding years,		$4,717,945.10
Bonded debt other than water debt,	$7,015,400.00	
Less debt exempted by special acts of the legislature,	2,046,000.00	
	$4,969,400.00	
Less general sinking funds,	1,235,888.62	
		3,733,511.38
Debt city can incur in 1917,		$984,433.72

The funded debt maturing in 1917 totals $890,200. Of this amount $89,000 is Water Debt, which will be paid by receipts of the Water Department, $495,000 from Sinking Funds established for the purpose and $306,200 serial bonds for sundry purposes, that will have to be appropriated for and paid from the tax levy.

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The following table compiled from previous reports, compares the appropriations, funded water debt, funded debt other than water, sinking funds, tax rate, and the assessors' valuation of real and personal property from the year 1890 to 1916 inclusive:—

Year.	Appropriations.	Water Debt.	Other Debt.	Sinking Funds.	Tax Rate.	Assessors' Valuation, Real and Personal.
1890	$507,450	$1,325,000	$124,000		$12.40	$44,493,633
1891	574,425	1,325,000	214,000	$22,734	12.50	48,329,634
1892	609,715	1,325,000	275,000	45,259	13.00	50,780,987
1893	664,050	1,675,000	263,000	75,202	12.80	55,239,919
1894	664,000	1,650,000	280,000	112,207	12.00	56,449,425
1895	732,300	1,625,000	319,500	192,297	12.20	59,033,141
1896	801,100	1,600,000	339,000	254,340	12.80	61,416,091
1897	872,300	1,575,000	783,500	357,471	13.00	64,898,379
1898	909,650	1,550,000	997,000	411,855	13.80	65,699,713
1899	978,175	1,525,000	968,800	506,654	13.60	69,869,847
1900	1,030,000	1,500,000	1,227,100	595,282	13.80	72,358,481
1901	1,075,500	1,475,000	1,379,900	711,033	14.00	74,338,927
1902	1,130,650	1,450,000	1,362,700	794,876	14.50	74,838,065
1903	1,170,000	875,000	1,480,500	296,461	14.60	77,207,898
1904	1,230,000	835,000	1,573,300	397,141	14.60	78,868,058
1905	1,270,000	595,000	1,809,100	384,424	15.40	80,904,476
1906	1,310,000	555,000	1,987,900	435,448	15.00	86,505,181
1907	1,360,000	785,000	2,059,700	504,805	15.00	92,378,624
1908	1,510,450	1,015,000	2,377,500	591,028	15.50	97,098,308
1909	1,614,800	2,095,000	3,230,300	714,592	14.80	107,875,780
1910	1,830,420	2,463,000	3,882,100	842,991	15.80	118,457,151
1911	2,039,381	2,443,000	4,107,900	968,067	16.50	127,249,343
1912	3,016,543	2,383,000	4,503,700	1,085,186	15.50	151,384,317
1913	3,400,279	2,359,000	5,626,500	1,017,128	15.80	169,743,933
1914	3,555,308	2,275,000	6,422,800	1,148,471	16.50	178,296,823
1915	3,807,803	2,191,000	6,759,600	1,246,389	18.20	188,941,408
1916	4,178,348	2,207,000	7,015,400	1,368,608	17.80	197,915,182

Respectfully submitted,

ELIPHALET T. TIFFT,
City Treasurer.

I hereby certify that I have examined, in detail, the foregoing abstracts from the accounts of the City Treasurer; that the receipts from various sources, as stated, are correct; that all expenditures are supported by warrants regularly approved by the proper officials, and that the condition of various accounts—including cash on hand and in banks—on November 30, 1916, has been verified by comparison with the records of this office.

WM. G. McINTYRE,
City Auditor.

SPRINGFIELD, MASS., December 26, 1916.

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CITY ORDINANCES FOR 1916.

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CITY OF SPRINGFIELD.

ORDINANCES OF 1916

CHAPTER I.

AN ORDINANCE

RELATING TO THE INSPECTION OF BUILDINGS AND THE PREVENTION OF FIRES.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. It shall be the duty of the Chief of the Fire Department or any member of said Department designated by him, from time to time to enter upon and into any premises, building, structure, or alley way within the corporate limits of the City of Springfield for the purpose of examining and inspecting the same to ascertain the condition thereof with regard to the presence, arrangement or deposit of any articles, materials, substances, goods, wares, or merchandise which may have a tendency to create danger in case of fire on or in the same, or personal injury to or loss of life of the occupants of or persons on or in said premises, building or structure; also with regard to the condition, size, arrangement and efficiency of any and all appliances for protection against fire on or in such premises, building or structure.

SECTION 2. If he shall find on such inspection of such premises, building or structure any rubbish, debris, waste or inflammable or combustible materials, and that the same is not so arranged or disposed as to afford reasonable safeguard against the dangers of fire, or if he shall find that the articles, materials, goods, wares and merchandise on or in said premises, building or structure are so arranged and disposed that the occupants thereof or persons rightfully on or in the same would not, because of such arrangement and disposition, be afforded reasonable access to the exits of said premises, building or structure in case of fire, or if he shall find that by reason of such arrangement or disposition the members of the Fire Department would unnecessarily and unreasonably be interfered with in the exercise of their duties in and about such premises, building or structure in case of fire in the same, he may order in writing the removal of such rubbish, debris, waste or inflammable or combustible

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materials from said premises, building or structure, or the disposing and arranging of the same on or in said premises, building or structure in such manner as will remove such danger from fire. He may also order in writing that such articles, materials, goods, wares or merchandise be so arranged and disposed on or in said premises, building or structure that the occupants thereof, or the persons rightfully on or in the same, will be afforded all reasonable access to the exits from the same in case of fire, and the members of the Fire Department will be afforded all reasonable facilities for the discharge of their duties in and about said premises, building or structure in case of fire.

SECTION 3. If he shall find that the appliances on or in such premises, building or structure for protection against fire are not in proper condition, or of insufficient size or number, or are otherwise insufficient for the purpose for which the same are designed and intended, or if he shall find that such appliances are reasonably necessary for the protection of such premises, building or structure and are wholly wanting he shall order, in the case of such improper condition or insufficiency, that the same be placed in proper condition and rendered reasonably sufficient to afford reasonable protection against fire, and in the case of absence of such appliances where he may find that they are reasonably necessary for protection against fire, he shall order the installation of appliances sufficient to afford such reasonable protection in case of fire to said premises, building or structure and to the occupants thereof or persons rightfully on or in the same.

SECTION 4. The Chief of the Fire Department hereby is empowered and authorized to appoint such and as many deputies to make the inspections hereinbefore provided for, who shall report in writing the results of their inspections to the Chief of the Fire Department and who are hereby empowered and authorized to make such orders in respect to the conditions found by them on inspection as are hereby authorized to be made by the Chief of the Fire Department. Should any owner, lessee or occupant of any premises, building or structure or the owner or person in control of any materials, goods, wares or merchandise consider themselves aggrieved by such order of such deputy, he may, within twenty-four hours after the said order has been served on him, appeal to the Chief of the Fire Department, who shall thereupon make such order in the premises as in his discretion he may deem right and reasonable, and said order shall be final.

SECTION 5. Such order or orders hereinbefore mentioned shall be directed to the owner, lessee or occupant of such premises, building or

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structure, or to the person in control of the articles, materials, goods, wares or merchandise herein referred to, or to the owner thereof, as the circumstances may require, and it is hereby made the duty of such owner, lessee or occupant of such premises, building or structure, and of such person in control of such articles, materials, goods, wares and merchandise, or the owner thereof, to comply with such order or orders with all reasonable dispatch and diligence.

SECTION 6. Any owner, lessee or occupant of such building, premises or structure or any person in control of such articles, materials, goods, wares and merchandise as hereinabove referred to, or the owner thereof, who shall fail or neglect to discharge the duties imposed by this ordinance and the orders of the Chief of the Fire Department, or the deputies appointed by him under this ordinance, on conviction thereof, shall be subject to a fine of not more than Twenty Dollars.

SECTION 7. The terms "owner," "lessee," "occupant," "person in control of" as used in the foregoing, shall be construed to include the plural, as well as the singular, and artificial persons as well as real.

Approved, February 21, 1916.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER II.

AN ORDINANCE

RELATING TO SIGNS AND OTHER PROJECTIONS IN PUBLIC WAYS.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. Except as hereinafter provided no person, firm or corporation shall place or maintain any sign, advertising device, clock, marquee, permanent awning or other like structure on any public highway of the city or projecting into or placed over such highway a distance of more than six inches except poles, wires, conduits, and appurtenances of steam railroad, street railway, telegraph and telephone, water, gas, electric light, heat and power companies, unless authorized so to do by a permit granted by the city council, and then only as hereinafter provided.

SECTION 2. The following rules and regulations relating to such permits are hereby made:—

1. Petitions for such permits shall be made on blank forms furnished by the building commissioner and shall set forth the purpose for which said sign or structure is to be used and the manner in which it is to project

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into or be placed on or over the public highway and shall describe accurately in writing, by drawing made to scale, or otherwise, the design and character of the construction of the same.

2. No such permit shall be issued authorizing the placing or maintaining of any such sign or other structure projecting into or over a highway within nine feet above the level of any such highway or a sidewalk thereof.

3. No such permit shall be issued authorizing the placing or maintaining of any such sign or other structure projecting into or over Main street or North Main street.

4. No such permit shall be issued authorizing the placing or maintaining of any such sign or other structure which shall be attached to any fence or other temporary structure inclosing any part of any highway temporarily for the purpose of work or repairs on the same or for the purpose of construction or repair of works or buildings.

5. No such permit shall be issued unless and until the applicant therefor shall file with the building commissioner a written agreement under seal, in a form approved by the city council, to comply with the terms of the permit and the ordinances of the city relating thereto and to indemnify the city for all loss, cost, expense, or damage which it may suffer by reason of the placing or maintaining of such sign or other structure projecting into or placed on or over the highway or by reason of any negligence relative thereto.

6. All signs, advertising devices, clocks, marquees, permanent awnings and other like structures for which permits shall be granted after the passage of this ordinance, shall be constructed, and, when attached to a building, shall be connected therewith in accordance with the requirements of the building commissioner.

7. No such sign or advertising device so projecting into or placed over a highway shall project into a highway more than four feet, nor to within one foot of the outside face of the sidewalk curbing, nor shall it extend more than four feet above the structure to which it is attached, nor shall it have an area greater than one hundred square feet nor shall it be more than twenty-five feet in height. Any such sign or advertising device having an area of more than sixty-four square feet shall be constructed of open wire work. Any such sign or advertising device that is illuminated or has an area greater than eight square feet shall be of incombustible material. Any such sign or advertising device that is illuminated and has a width of not more than two feet in the body thereof shall not be larger than sixty-four square feet in area, and any

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such sign or advertising device that is illuminated and has a width of more than two feet in the body thereof shall not be larger than twenty square feet in area.

8. No marquee, permanent awning or other like structure projecting into or placed over a highway shall project beyond the outside face of the sidewalk curbing and every such marquee, permanent awning or other like structure shall be without posts or supports placed on the highway or the sidewalk thereof and shall be made of metal and if glazed shall be glazed with wire glass not less than three eighths of an inch thick and shall be provided with gutters drained towards the side of the highway so as to prevent the dripping of water on the highway or sidewalk thereof.

9. A permit issued hereunder may be for any period not exceeding twelve months. Such permit may be renewed from time to time by the city council so long as in the opinion of the city council renewal may be necessary or advisable. It may be suspended or revoked for any reason that the city council may consider sufficient.

10. For every such permit issued, and for every renewal or extension thereof, the city council shall charge and the city collector shall collect in advance a fee of one dollar.

11. If any person, firm or corporation placing or maintaining any such sign or other structure contrary to the provisions of this ordinance, after five days' notice to remove the same has been given as above provided, neglects to remove the same, the building commissioner may remove the same at the expense of such person, firm or corporation provided that such expense shall not exceed the amount of the penalty imposed by this ordinance for neglect of said duty to remove.

SECTION 3. Such signs or other structures so placed and maintained at the time this ordinance goes into effect may be so maintained for a period not exceeding five years thereafter.

SECTION 4. Any person who places or maintains a sign, advertising device, clock, marquee, permanent awning or other like structure projecting into or placed on or over a public highway of this city in violation of the provisions of this ordinance shall be subject to a fine of five dollars for each day during which such sign, advertising device, clock, marquee, permanent awning or other structure is placed or maintained, after five days' notice to remove the same has been given by the city council or by a police officer of the City of Springfield.

SECTION 5. Sections 3 and 4 of Chapter 37 of the Revised Ordinances and Chapter 12 of the Ordinances of 1912 are hereby repealed.

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SECTION 6. All ordinances and parts of ordinances inconsistent herewith are hereby repealed.

Approved, April 10, 1916.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER III.

AN ORDINANCE

ESTABLISHING THE SALARIES OF THE DEPUTY CHIEF OF POLICE, AGENT OF THE BOARD OF HEALTH, HEALTH PHYSICIAN, SUPERINTENDENT OF THE STREET LIGHTING DIVISION OF THE DEPARTMENT OF STREETS AND ENGINEERING, AND CITY PHYSICIAN.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. The salaries of the Deputy Chief of Police, Agent of the Board of Health, Health Physician, Superintendent of the Street Lighting Division of the Department of Streets and Engineering, and City Physician are hereby established as follows:—

Deputy Chief of Police, Twenty-one hundred dollars per annum.

Agent of the Board of Health, Two thousand dollars per annum.

Health Physician, Twenty-one hundred dollars per annum.

Superintendent of the Street Lighting Division of the Department of Streets and Engineering, Sixteen hundred dollars per annum.

City Physician, Seventeen hundred dollars per annum.

SECTION 2. All ordinances or parts of ordinances inconsistent herewith are hereby repealed.

Approved, May 29, 1916.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER IV.

AN ORDINANCE

ACCEPTING CHAPTER 293 OF THE GENERAL ACTS OF THE LEGISLATURE OF THIS COMMONWEALTH OF 1916, ENTITLED "AN ACT TO AUTHORIZE THE LICENSING BY CITIES AND TOWNS OF MOTOR VEHICLES CARRYING PASSENGERS FOR HIRE."

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. Chapter 293 of the General Acts of the Legislature of this Commonwealth of 1916, entitled "An Act to Authorize the Licensing

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by Cities and Towns of Motor Vehicles Carrying Passengers for Hire," is hereby accepted, as follows:—

SECTION 1. Cities and towns shall have authority to license and regulate the transportation of passengers for hire as a business between fixed and regular termini by means of any motor vehicle, except the trackless trolly vehicle, so-called, not running on tracks or rails, and may impose reasonable license fees, make regulations for the operation of such vehicles within their own limits, and impose suitable penalties for the violation of such regulations; provided, however, that no such motor vehicle shall be operated as aforesaid until the licensee of the vehicle, in addition to complying with all regulations of the city or town in which the vehicle is to be operated, shall have deposited with the treasurer of any city or town in which a license has been taken out, security by bond or otherwise, approved by the city or town treasurer, in such sum as the city or town may reasonably require, conditioned to pay any final judgment obtained against the principal named in the bond for any injury to person or property, or damage for causing the death of any person, by reason of any negligent or unlawful act on the part of the principal named in said bond, his or its agents, employes or drivers, in the use or operation of any such vehicle. Any person so injured or damaged may sue on the bond in the name of the city or town treasurer, and damages so receovered shall go to the person injured or damaged.

SECTION 2. Nothing in this act shall be construed as requiring the licensee to file more than one bond, which shall be filed in any city or town in which a license has been taken out.

SECTION 3. This act shall take full effect in cities upon its acceptance by the City Council, and in towns upon its acceptance by the voters of the town at any duly called town meeting. For the purpose of submitting this act to cities and to towns, it shall take effect upon its passage. Approved June 1, 1916.

Approved June 27, 1916.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER V.

AN ORDINANCE

ESTABLISHING THE SALARY OF THE SUPERINTENDENT OF THE STREET LIGHTING DIVISION OF THE DEPARTMENT OF STREETS AND ENGINEERING.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. The salary of the Superintendent of the Street Lighting

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Division of the Department of Streets and Engineering is hereby established at Eighteen hundred dollars per annum.

SECTION 2. All ordinances or parts of ordinances inconsistent herewith are hereby repealed.

Approved July 18, 1916.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER VI.

AN ORDINANCE

CREATING A MILITARY RELIEF COMMISSION.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. There is hereby created a commission to be called the military relief commission to consist of three citizens of the city of Springfield who shall be appointed by the mayor. As soon after the passage hereof as is practical the mayor shall appoint the members of such commission to hold office for the terms of one, two and three years respectively from the first day of July, 1916, and hereafter in the month of June in each year the mayor shall appoint a citizen as a member of such commission to hold office for three years from the first day of July therein.

Vacancies occurring in the commission shall be filled by appointment by the mayor to fill any unexpired terms.

SECTION 2. The members of such commission shall serve without pay. Such commission may make rules for the conduct of its business, choose its officers and hold such meetings as it shall deem proper and necessary.

SECTION 3. It shall be the duty of such commission to disburse such sums of money as the city council may appropriate for necessary aid to soldiers and sailors and their families, and to the families of the slain, in such amounts and to such persons being residents of the city of Springfield, as it may deem to be entitled thereto.

SECTION 4. The city treasurer is authorized to pay money on the order in writing by said commissioners or any two of them and countersigned by the mayor and no other approval shall be necessary.

Approved, September 5, 1916.

Attest: E. A. NEWELL, *City Clerk.*

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CHAPTER VII.

AN ORDINANCE

RELATIVE TO THE LICENSING AND REGULATING OF CERTAIN MOTOR VEHICLES.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. No person, firm or corporation shall engage in the city of Springfield in the transportation of passengers for hire as a business between fixed and regular termini by means of any motor vehicle, except the trackless trolly vehicle, so-called, not running on tracks or rails, unless licensed so to do under the provisions hereof and then only as hereinafter provided.

SECTION 2. The City Council hereby delegates to the Police Commission the power vested in it by the laws of the Commonwealth to license such motor vehicles for such transportation of passengers as a business.

SECTION 3. Applications for such licenses shall be made to the Police Commission on blank forms furnished by said commission and shall set forth the name, place of residence and postoffice address of the applicant, a brief description of the motor vehicle a license for which is being applied for and such other information as the said commission may require. The said commission may require that the truth of the allegations in such applications shall be sworn to before an officer authorized to administer oaths.

SECTION 4. The Police Commission may grant and issue to persons, firms and corporations duly making application therefor licenses to operate such motor vehicles for such transportation of passengers as a business within the city of Springfield subject to the provisions of law and the ordinances of the city of Springfield, provided they find the person, firm or corporation applying therefor suitable to conduct such business and provided further that they cause such vehicle to be inspected and after such inspection find the same to be proper and safe for use in such business.

SECTION 5. The Police Commission shall fix routes over which motor vehicles so licensed may be operated. No such motor vehicle shall be operated except over routes so fixed.

SECTION 6. Every license shall be signed by the Police Commission and it shall be recorded in the office thereof. It shall name the person licensed, his place of residence and a brief description of the motor vehicle licensed, the number of passengers exclusive of the operator which the

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vehicle may carry, and shall continue until the first day of May next ensuing, unless sooner rendered void. Such licenses shall be numbered in regular order as granted and shall be expressed to be subject to the provisions of law and of the ordinances of the city of Springfield applicable thereto.

SECTION 7. The fees for such licenses shall be fifteen dollars for every motor vehicle licensed to carry seven passengers or less exclusive of the operator and five dollars additional for each passenger in excess of seven which the license authorizes the car to carry.

SECTION 8. The said commission shall issue to the licensee a metal plate bearing the words, "License motor vehicle No. Springfield, 19 , passengers," setting forth the serial number of the license, the date and the number of passengers exclusive of the operator that the car is licensed to carry. Said plate shall be attached to and kept on the dash of the motor vehicle in such a position as to be visible to the occupants thereof.

SECTION 9. No person shall operate any such motor vehicle so licensed within the city of Springfield unless he shall be twenty years of age or older and unless he shall have first obtained a license so to do from the Police Commission, which license shall state the name, age, height, and weight of the licensee, his home address and the name of his employer if he operates such car as an employee. The application for such license shall be on a blank furnished by said commission, and the form of the application and the kinds of information to be furnished therein by the applicant shall be such as from time to time may be prescribed by said commission, and said commission may require that the truth of the allegations in such application shall be sworn to before an officer authorized to administer oaths. The said commission shall not grant such a license to any applicant who has not demonstrated to the satisfaction of said commission his ability to drive the vehicle proposed to be operated by him. Such licenses shall be signed by the Police Commission, shall be numbered in regular order as granted, shall be recorded in the office thereof and shall expire on the first day of May next succeeding the date thereof. The fee for such license shall be one dollar.

SECTION 10. The said commission at the time of issuing such license shall deliver to the licensee a metal badge bearing the words, "Licensed Chauffeur No..... Springfield," setting forth the serial number of the license, which badge shall be worn conspicuously upon the front of the hat or cap of the licensee at all times when he is operating any motor vehicle licensed under the provisions of this ordinance; and said com-

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mission shall also then deliver to the licensee an identification card, stating thereon the number of the license, the name, age, height, weight, color of the hair, color of the eyes and race of the licensee, and the term of the license. No such licensee shall permit any other person to wear such badge, nor shall any person wear the badge of any other licensee, when operating any motor vehicle. Every person so licensed while operating any motor vehicle licensed under the provisions of this ordinance, shall carry his identification card and the license for such vehicle, and at any time when requested by any police officer shall show such license and such identification card.

SECTION 11. No motor vehicle so licensed shall be operated without having a sign thereon stating the main street or streets of the route, the termini of the route, the fare to be charged and the license number of the vehicle, which sign shall be so placed near the lower part of the wind shield or on the dash or hood of the vehicle as to be plainly visible to persons on the street in front of the vehicle. The letters and figures on such sign shall be not less than two and one half inches in height and shall have a stroke of not less than one quarter inch in width. No other sign of any kind except the owner's name or symbol shall be placed or carried on any such vehicle.

SECTION 12. A person licensed to operate such motor vehicle may with the permission of the Police Commission substitute another vehicle of the same carrying capacity for the vehicle so licensed. Before granting such permission the Police Commission shall cause said vehicle to be inspected and shall not give such permission unless they find the said vehicle to be proper and safe for use in such business. In case of such substitution the license shall be amended so as to show the substitution and to give a brief description of the motor vehicle so substituted.

SECTION 13. A license shall not be issued until the license fee has been paid to the city treasurer nor until he has received a bond approved by him payable to him as such treasurer in the sum of one thousand dollars for each and every passenger the licensee is authorized to carry in said vehicle signed by the licensee as principal and a corporation as surety which shall have complied with all the provisions of law as to transacting the business of a guarantee fidelity and surety company within this Commonwealth, or such other sureties as shall be approved by the city treasurer who shall be jointly and severally liable, conditioned to pay any final judgment obtained against the principal named in the bond for any injury to person or property, or damage for causing the death of any person, by reason of any negligent or unlawful act on the part of

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the principal named in said bond, his or its agents, employees or drivers, in the use or operation of the vehicle so licensed. In case the surety on any such bond is an individual his execution thereof shall be acknowledged before an officer duly authorized to take acknowledgments.

SECTION 14. In case said city treasurer at any time shall determine that any surety on any such bond is not possessed of sufficient property to be able to respond to the obligation of surety on such bond whether any such damage may have occurred or accrued or not, said city treasurer after giving the principal thereof an opportunity to be heard, may require such principal to furnish another or further surety on such bond, or a new bond, for the remainder of the term of the license of the motor vehicle to which such bond relates, and if within five days after notice of such requirement such principal shall not furnish such new bond or such other or further surety, approved by said city treasurer, the motor vehicle license to which such bond relates, without any further action by the Police Commission, shall stand suspended until such new bond or such other or further surety, approved by said city treasurer, shall be furnished.

SECTION 15. In case any surety on any such bond at any time may desire to terminate his liability on such bond as to any such damages that might occur or accrue in the future, such surety may terminate the same by giving at least five days' previous written notice thereof to the principal named in such bond and to the city treasurer and upon receipt of such notice such principal shall furnish another surety on such bond or a new bond for the remainder of the term of the license of the motor vehicle to which such bond relates, and if before such termination of such liability of such surety such principal shall not furnish such new bond or such other surety, approved by the city treasurer, the motor vehicle license to which such bond relates, without any action by the Police Commission, shall stand suspended until such new bond or such other surety approved by the city treasurer shall be furnished.

SECTION 16. No person operating any motor vehicle so licensed shall refuse to carry any person offering himself to be carried as a passenger therein, unless the seats of the same are fully occupied, or unless such person be intoxicated or disorderly.

SECTION 17. Every motor vehicle so licensed shall be operated for six or more hours in every day during the term of its license that it is used in such transportation of passengers as a business; but no person shall operate any such vehicle for more than 12 hours in any one day.

SECTION 18. No person operating any motor vehicle so licensed shall

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solicit passengers by outcry or make any noise for the purpose of soliciting passengers.

SECTION 19. No motor vehicle so licensed shall stand to wait for passengers in any street, square or public place, except on such portions thereof and during such hours as may be designated therefor by said Police Commission, and said commission may from time to time designate locations in streets, squares, and public places, in which general street travel will not be materially interfered with, where such vehicles may so stand; and said commission, at any time when it finds that any such location materially interferes with public travel, may cancel such locations and said commission may at any time cancel any such hours for such use and prescribe other hours therefor.

SECTION 20. No motor vehicle so licensed shall be stopped to take on or to discharge passengers on the westerly side of Main Street within the section thereof bounded by the south side of Worthington Street, and the north side of Fort Street; nor on any street within thirty-five feet of any place designated by a white post or in other manner for receiving or discharging passengers by any street railway; nor at any place on any street except at the curb; nor shall any passenger be permitted to enter or leave the vehicle except from the side thereof nearest the curb but this latter provision shall not apply to a passenger on a front seat where the operator's seat is on the side of the curb.

SECTION 21. No motor vehicle so licensed shall be turned around on Main Street between Carew Street on the north and Locust Street on the south.

SECTION 22. No motor vehicle so licensed shall be operated in any street or public place where there is snow or ice unless it be equipped with proper non-skidding chains and every such vehicle shall be kept in safe and proper condition for use in such business, and to that end the said commission shall have the right to have the same examined at any reasonable time or times by any representative or agent of said commission, without charge to the licensee therefor.

SECTION 23. No greater number of passengers shall be carried at any one time in any such motor vehicle so licensed, than the license of such vehicle shall specify, provided that in addition thereto children under seven years of age may be carried therein in arms or seated on the laps of parents or adult person accompanying them, but no passenger with a child in arms or seated on the lap shall be permitted on any front seat of the vehicle. Nor shall any person be permitted to stand upon any

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running board or step of any such vehicle or to sit upon any fender, dash top or door thereof.

SECTION 24. No person operating any motor vehicle so licensed shall collect fares, make change, or take on or discharge passengers while such vehicle is in motion; nor shall he have a lighted cigarette, cigar or pipe in his possession while any passenger is being carried therein, nor drink any intoxicating beverage of any kind, nor be under the influence thereof, while engaged in operating such vehicle.

SECTION 25. Every person operating any motor vehicle so licensed shall stop the same before crossing the tracks of any steam railroad at the grade thereof.

SECTION 26. No person operating a motor vehicle so licensed shall place or maintain or permit to be placed or maintained on such vehicle any curtain or other obstruction in such a way as to interfere with a view of the interior of such vehicle except when it may become necessary so to do to protect passengers from rain or snow.

SECTION 27. No passenger shall be charged more than five cents for being carried in any motor vehicle so licensed between any two points in the city within the circle with a radius of two and one half miles from Court Square; nor shall any passenger be charged or required to pay a greater fare than that set forth on the sign required hereby, or charged or required to pay for any piece of hand baggage more than the amount of the fare charged for the transportation of the passenger, but no charge shall be made for hand baggage which shall be held by the passenger without inconvenience to other passengers.

SECTION 28. Every person operating any such motor vehicle so licensed shall deliver any article left therein by any passenger to the Police Commission not later than twenty-four hours after finding the same and shall receive a receipt therefor from said commission, and said commission shall provide for returning the same to the owner upon proper identification and proof of ownership. All such articles delivered to said commission and not claimed within ninety days from such delivery shall be delivered to the licensee of the vehicle in which they were left.

SECTION 29. Whenever in the judgment of the Police Commission public convenience and necessity so require the commission may grant and issue such licenses for such motor vehicles for terms of one or more weeks. The terms of such licenses shall be stated therein. The fees for such licenses shall be at the rate of five dollars for each week of the term

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thereof. All of the provisions of this ordinance shall apply to such licenses except as otherwise provided in this section.

SECTION 30. Nothing in this ordinance contained shall be deemed to apply to any motor vehicle used exclusively for sightseeing purposes or for carrying guests or prospective guests to or from any hotel.

SECTION 31. Any person violating any of the provisions of this ordinance shall be liable to a fine not exceeding $20 for each such offense, and any violation thereof on any day shall constitute a separate offense. The Police Commission may suspend or revoke any license granted hereunder for any violation of the provisions of this ordinance, or of any other law or ordinance or for other sufficient cause provided that the licensee shall be given an opportunity to be heard before any suspension or revocation of his license.

SECTION 32. This ordinance shall take effect on the first day of November, 1916.

Approved, October 23, 1916.

Attest: E. A. NEWELL, *City Clerk.*

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TAXES.

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TAXES.

TAXES—1905—WILLIAM H. C. AUGUR, COLLECTOR.

Amount of State tax committed,	$98,960 00	
Amount of County tax committed,	74,932 77	
Amount of Bank tax committed,	39,209 52	
Amount of City tax committed,	1,109,312 49	
Amount of Military Armory tax committed,	6,728 38	
Amount of Grade Crossing tax committed,	1,177 05	
Amount of Excise tax Springfield Street Railway committed,	12,132 26—	$1,342,452 47
Received of Collector as follows: —		
State tax,	$98,960 00	
County tax,	74,932 77	
Bank tax,	39,209 52	
On account of City tax,	1,096,511 34	
Military Armory tax,	6,728 38	
Grade Crossing tax,	1,177 05	
Excise tax Springfield Street Railway,	12,132 26	
Abatements,	12,801 15—	$1,342,452 47

Rate—Fifteen dollars and forty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1906—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$86,590 00
Amount of County tax committed,	89,968 08
Amount of Bank tax committed,	26,876 53
Amount carried forward,	$203,434 61

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Amount brought forward,	$208,434 61		
Amount of City tax committed,	1,157,038 64		
Amount of Military Armory tax committed,	6,611 06		
Amount of Grade Crossing tax committed,	1,111 66		
Amount of Excise tax Springfield Street Railway committed,	12,856 06		
Amount of Special Census tax committed,	820 78	—	$1,381,872 81
Received of Collector as follows: —			
State tax,	$86,590 00		
County tax,	89,968 08		
Bank tax,	26,876 53		
On account of City tax,	1,145,794 34		
Military Armory tax,	6,611 06		
Grade Crossing tax,	1,111 66		
Excise tax Springfield Street Railway,	12,856 06		
Special Census,	820 78		
Abatements,	11,244 30	—	$1,381,872 81

Rate—Fifteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1907—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$103,280 00		
Amount of County tax committed,	92,566 11		
Amount of Bank tax committed,	26,073 69		
Amount of City tax committed,	1,230,789 52		
Amount of Military Armory tax committed,	6,430 43		
Amount of Excise tax Springfield Street Railway committed,	13,646 75	—	$1,472,786 50
Received of Collector as follows: —			
State tax,	$103,280 00		
County tax,	92,566 11		
Bank tax,	26,073 69		
On account of City tax,	1,220,963 31		
Military Armory tax,	6,430 43		
Excise tax Springfield Street Railway,	13,646 75		
Abatements,	9,826 21	—	$1,472,786 25

Rate—Fifteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

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TAXES—1908—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$142,010 00		
Amount of County tax committed,	92,465 60		
Amount of Bank tax committed,	26,346 46		
Amount of City tax committed,	1,326,257 02		
Amount of Military Armory tax committed,	922 50		
Amount of Excise tax Springfield Street Railway committed,	13,608 62		
Amount for abating nuisance Kibbe Hollow tax committed,	785 76	—	$1,602,395 96
Received of Collector as follows:—			
State tax,	$142,010 00		
County tax,	92,465 60		
Bank tax,	26,346 46		
On account of City tax,	1,313,145 20		
Military Armory tax,	922 50		
Excise tax Springfield Street Railway,	13,608 62		
Abatements,	13,463 23		
On account of abating nuisance Kibbe Hollow,	434 35	—	$1,602,395 96

Rate—Fifteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1909—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$116,190 00		
Amount of County tax committed,	92,465 60		
Amount of Bank tax committed,	25,127 59		
Amount of City tax committed,	1,442,009 18		
Amount of Excise tax Springfield Street Railway committed,	14,214 26		
Amount for abating nuisance Kibbe Hollow tax committed,	785 76	—	$1,690,792 39
Received of Collector as follows:—			
State tax,	$116,190 00		
County tax,	92,465 60		
Bank tax,	25,127 59		
On account of City tax,	1,426,950 22		
Amount carried forward,	$1,660,733 91		

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Amount brought forward,	$1,660,733	41	
Excise tax Springfield Street Railway,	14,214	26	
Abatements,	15,349	67	
Abatement on account of abating nuisance Kibbe Hollow,	495	05—	$1,690,792 39

Rate—Fourteen dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1910—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$158,345	00	
Amount of County tax committed,	95,413	62	
Amount of Bank tax committed,	29,595	64	
Amount of City tax committed,	1,685,106	13	
Amount of Excise tax Springfield Street Railway committed,	14,671	37—	$1,983,131 76

Received of Collector as follows:—

State tax,	$158,345	00	
County tax,	95,413	62	
Bank tax,	29,595	64	
On account of City tax,	1,665,597	37	
Excise tax Springfield Street Railway,	14,671	37	
Abatements,	19,508	76—	$1,983,131 76

Rate—Fifteen dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1911—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$158,345	00	
Amount of County tax committed,	107,858	85	
Amount of Bank tax committed,	33,125	83	
Amount of City tax committed,	1,907,444	59	
Amount of Excise tax Springfield Street Railway committed,	13,441	88—	$2,220,216 15

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Received of Collector as follows:—

State tax,	$158,345 00	
County tax,	107,858 85	
Bank tax,	33,125 83	
On account of City tax,	1,892,321 38	
Excise tax, Springfield Street Railway,	13,441 88	
Abatements,	15,123 21—	$2,220,216 15

Rate—Sixteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1912—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$182,027 18	
	$179,937 50	
State System of accounts,	2,089 68	

Amount of County tax committed,	105,266 09	
Amount of Bank tax committed,	28,134 82	
Amount of City tax committed,	2,130,292 54	
Amount of Excise tax, Springfield Street Railway, committed,	14,584 19—	$2,460,304 82

Received of Collector as follows:—

State tax,	$182,027 18	
County tax,	105,266 09	
Bank tax,	28,134 82	
On account of City tax,	2,103,191 75	
Excise tax, Springfield Street Railway,	14,584 19	
Abatements,	27,100 79—	$2,460,304 82

Rate—Fifteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, WILLIAM C. MARSH, *City Auditor.*

TAXES—1913—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$255,920 00	
Amount of County tax committed,	116,422 70	
Amount of Bank tax committed,	25,108 66	
Amount of City tax committed,	2,383,606 98	
Amount of Excise tax, Springfield Street Railway committed,	16,446 00—	$2,797,504 34

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Received of Collector as follows :—		
State tax,	$255,920 00	
County tax,	116,422 70	
Bank tax,	25,108 66	
Excise tax, Springfield Street Railway,	16,446 00	
On account of City tax,	2,354,763 81	
Abatements,	28,843 17—	$2,797,504 34

Rate—Fifteen dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, WM. G. McINTYRE, *City Auditor.*

TAXES—1914—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$279,912 50	
Amount of County tax committed,	115,373 85	
Amount of Bank tax committed,	26,846 80	
Amount of Excise tax, Springfield Street Railway, committed,	16,673 85	
Amount of City tax committed,	2,659,381 98—	$3,098,188 98
Received of Collector as follows :—		
State tax,	$279,912 50	
County tax,	115,373 85	
Bank tax,	26,846 80	
Excise tax, Springfield Street Railway,	16,673 85	
On account of City tax,	2,624,423 81	
Abatements,	34,958 17—	$3,098,188 98

Rate—Sixteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, WM. G. McINTYRE, *City Auditor.*

TAXES—1915—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$311,902 50	
Amount of County tax committed,	123,240 23	
Amount of Bank tax committed,	23,673 83	
Amount of Excise tax, Springfield Street Railway, committed,	16,494 16	
Amount of City tax committed,	3,093,478 76—	$3,568,789 48

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Received of collector as follows:—

State tax,	$311,902	50	
County tax,	123,240	23	
Bank tax,	23,673	83	
Excise tax, Springfield Street Railway,	16,494	16	
On account of City tax,	3,057,012	57	
Abatements,	35,689	10	
Uncollected taxes,	777	09—	$3,568,789 48

Rate—Eighteen dollars and twenty cents on one thousand dollars. Poll tax, two dollars.

Attest, WM. G. McINTYRE, *City Auditor.*

TAXES—1916—CHARLES A. FRAZER, Collector.

Amount of State tax committed,	$296,240	00	
Amount of County tax committed,	150,706	77	
Amount of Bank tax committed,	18,181	04	
Amount of Excise tax, Springfield Street Railway, committed,	17,999	27	
Amount of City tax committed,	3,196,975	60—	$3,680,052 68

Received of Collector as follows:—

State tax,	$296,240	00	
County tax,	150,706	77	
Bank tax,	18,181	04	
Excise tax, Springfield Street Railway,	17,999	27	
On account of City tax,	2,364,970	41	
Abatements,	72,932	65	
Uncollected taxes,	759,072	54—	$3,680,052 68

Rate—Seventeen dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, WM. G. McINTYRE, *City Auditor.*

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ASSESSORS' VALUATION OF PROPERTY.

1852—Total valuation,		$5,180,210 00
1853—Total valuation,		5,509,660 00
1854—Total valuation,		7,762,250 00
1855—Total valuation,		8,409,870 00
1856—Total valuation,		8,284,060 00
1857—Total valuation,		8,558,720 00
1858—Real estate,	$5,702,040 00	
Personal estate,	2,679,100 00	8,381,140 00
1859—Real estate,	5,794,590 00	
Personal estate,	2,845,640 00	8,640,230 00
1860—Real estate,	5,962,480 00	
Personal estate,	2,955,800 00	8,918,280 00
1861—Real estate,	6,417,660 00	
Personal estate,	3,067,920 00	9,485,580 00
1862—Real estate,	6,719,500 00	
Personal estate,	3,039,390 00	9,758,890 00
1863—Real estate,	7,211,320 00	
Personal estate,	3,744,790 00	10,956,110 00
1864—Real estate,	8,536,490 00	
Personal estate,	2,871,430 00	11,407,920 00
1865—Real estate,	9,007,850 00	
Personal estate,	3,784,910 00	12,792,760 00
1866—Real estate,	10,241,540 00	
Personal estate,	4,755,480 00	14,997,020 00
1867—Real estate,	12,758,420 00	
Personal estate,	5,110,810 00	17,869,230 00
1868—Real estate,	15,125,520 00	
Personal estate,	5,322,640 00	20,448,160 00
1869—Real estate,	17,665,610 00	
Personal estate,	5,901,570 00	23,567,180 00
1870—Real estate,	18,443,990 00	
Personal estate,	6,070,070 00	24,514,060 00
1871—Real estate,	20,962,100 00	
Personal estate,	6,589,870 00	27,551,970 00

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1872—Real estate,	$26,098,920 00	
Personal estate,	7,512,230 00	$33,611,150 00
1873—Real estate,	29,380,520 00	
Personal estate,	8,060,300 00	37,440,820 00
1874—Real estate,	30,489,850 00	
Personal estate,	7,846,928 00	38,336,778 00
1875—Real estate,	31,125,660 00	
Personal estate,	8,398,912 40	39,524,572 40
1876—Real estate,	27,647,560 00	
Personal estate,	7,461,896 86	35,109,456 86
1877—Real estate,	23,737,000 00	
Personal estate,	6,955,776 66	30,692,776 66
1878—Real estate,	22,746,330 00	
Personal estate,	6,637,845 72	29,384,175 72
1879—Real estate,	22,211,230 00	
Personal estate,	7,230,094 00	29,441,324 00
1880—Real estate,	22,856,020 00	
Personal estate,	8,292,655 00	31,148,675 00
1881—Real estate,	23,795,920 00	
Personal estate,	8,935,850 00	32,731,770 00
1882—Real estate,	25,084,420 00	
Personal estate,	9,198,258 00	34,282,678 00
1883—Real estate,	25,676,800 00	
Personal estate,	9,260,459 00	34,937,259 00
1884—Real estate,	26,301,150 00	
Personal estate,	8,792,666 00	35,093,816 00
1885—Real estate,	26,969,800 00	
Personal estate,	8,865,928 00	35,835,728 00
1886—Real estate,	27,638,760 00	
Personal estate,	9,143,442 00	36,782,202 00
1887—Real estate,	28,566,280 00	
Personal estate,	9,416,384 17	37,982,664 17
1888—Real estate,	30,323,140 00	
Personal estate,	9,540,115 14	39,863,255 14
1889—Real estate,	32,000,680 00	
Personal estate,	10,072,895 00	42,073,575 00
1890—Real estate,	33,795,860 00	
Personal estate,	10,697,773 00	44,493,633 00
1891—Real estate,	37,219,490 00	
Personal estate,	11,110,144 00	48,329,634 00

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1892—Real estate,	$39,444,580 00	
Personal estate,	11,336,407 00	$50,780,987 00
1893—Real estate,	42,975,820 00	
Personal estate,	12,264,099 00	55,239,919 00
1894—Real estate,	44,083,900 00	
Personal estate,	12,365,525 00	56,449,425 00
1895—Real estate,	46,063,460 00	
Personal estate,	12,969,681 00	59,033,141 00
1896—Real estate,	48,344,280 00	
Personal estate,	13,071,811 00	61,416,091 00
1897—Real estate,	50,344,460 00	
Personal estate,	14,553,919 00	64,898,379 00
1898—Real estate,	52,022,570 00	
Personal estate,	13,677,143 00	65,699,713 00
1899—Real estate,	53,400,770 00	
Personal estate,	16,469,077 00	69,869,847 00
1900—Real estate,	55,676,320 00	
Personal estate,	16,682,161 00	72,358,481 00
1901—Real estate,	57,394,710 00	
Personal estate,	16,944,217 00	74,338,927 00
1902—Real estate,	58,411,160 00	
Personal estate,	16,424,905 40	74,836,065 40
1903—Real estate,	60,787,130 00	
Personal estate,	16,420,768 80	77,207,898 80
1904—Real estate,	62,145,950 00	
Personal estate,	16,722,107 80	78,868,057 80
1905—Real estate,	63,273,330 00	
Personal estate,	17,631,146 80	80,904,476 80
1906—Real estate,	68,239,990 00	
Personal estate,	18,265,191 00	86,505,181 00
1907—Real estate,	73,319,860 00	
Personal estate,	19,058,764 00	92,378,624 00
1908—Real estate,	76,965,520 00	
Personal estate,	20,132,788 00	97,098,308 00
1909—Real estate,	85,403,490 00	
Personal estate,	22,472,290 00	107,875,780 00
1910—Real estate,	94,984,660 00	
Personal estate,	24,097,118 00	119,081,778 00

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1911—Real estate,	$102,393,230 00	
Personal estate,	25,659,804 00	$128,053,034 00
1912—Real estate,	123,602,570 00	
Personal estate	25,927,780 00	149,530,350 00
1913—Real estate,	139,348,180 00	
Personal estate,	31,326,534 00	170,674,714 00
1914—Real estate,	147,180,360 00	
Personal estate,	32,948,691 00	180,129,051 00
1915—Real estate,	155,949,860 00	
Personal estate,	33,594,430 00	189,544,290 00
1916—Real estate,	162,945,320 00	
Personal estate,	39,004,692 00	201,950,012 00

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CITY OFFICERS.

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CITY OFFICERS.

CITY OFFICERS FOR 1852.

MAYOR—CALEB RICE.

ALDERMEN—Ward One, Samuel S. Day; Ward Two, Eliphalet Trask; Ward Three, E. D. Beach; Ward Four, George Dwight; Ward Five, Albert Morgan; Ward Six, Charles G. Rice; Ward Seven, Oliver B. Bannon; Ward Eight, F. A. Barton.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, Henry Morris; Ward One, J. B. M. Stebbins, Eleazer Ripley, John V. Jones; Ward Two, W. C. Sturtevant, Francis Bates, Henry Fuller, Jr.; Ward Three, Charles Merriam, Willis Phelps, Cicero Simons; Ward Four, Henry Morris, Alexander H. Avery, Benjamin F. Warner; Ward Five, William Hitchcock, Hiram Q. Sanderson, Nathaniel Cate; Ward Six, Henry Adams; Ward Seven, Ezra Kimberly; Ward Eight, Rodney Holt.

CLERK—Alanson Hawley.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICERS FOR 1853.

MAYOR—CALEB RICE.

ALDERMEN—Ward One, John B. Stebbins; Ward Two, Eliphalet Trask; Ward Three, Willis Phelps; Ward Four, Henry Vose; Ward Five, Titus Amadon; Ward Six, Drayton Perkins; Ward Seven, Joseph N. Sollace; Ward Eight, Harvey Foster.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, Henry Morris (resigned May 16). William Stowe; Ward One, Daniel Hitchcock, William Pynchon, Addison Day; Ward Two, Joseph C. Pynchon, Orrin Baker, E. W. Bond; Ward Three, Lombard Dale, T. M. Walker, William Stowe; Ward Four, Henry Morris, Alexander H. Avery, Edmund Palmer; Ward Five, Nathaniel Cate, William Dickinson, Daniel Collins; Ward Six, Henry Adams; War Seven, Ezra Kimberly; Ward Eight, William S. Barker.

CLERK—Alanson Hawley (resigned March 7), Samuel O. Gay.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICERS FOR 1854.

MAYOR—PHILOS B. TYLER.

ALDERMEN—Ward One, Wilson Eddy; Ward Two, Eliphalet Trask; Ward Three, Elkanah Barton; Ward Four, William L. Washburn; Ward Five, Edward F. Moseley; Ward Six, Roderick Lombard; Ward Seven, Joseph Lombard; Ward Eight, Rodney Holt.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, Samuel S. Day; Ward One, Asa Clark, Samuel S. Day, Thomas W. Wason; Ward Two, George H. Roberts, Henry A. Robinson, Roderick Ashley; Ward Three, Philo F. Wilcox, Lombard Dale, Frederick H. Harris; Ward Four, Daniel L. Harris, Tilly Haynes, Joseph B. Hopkins; Ward Five, Daniel Collins, G. W. Harrison, A. H. Clark; Ward Six, Edwin S. Hall; Ward Seven, Harris B. Johnson; Ward Eight, Horace Pease.

CLERK—Charles O. Chapin.

CITY CLERK AND TREASURER—Joseph Ingraham.

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CITY OFFICERS FOR 1855.

MAYOR—ELIPHALET TRASK.

ALDERMEN—Ward One, James M. Blanchard; Ward Two, W. C. Sturtevant; Ward Three, David Smith; Ward Four, Daniel Reynolds; Ward Five, William E. Montague; Ward Six, Henry Adams; Ward Seven, James P. Chapman; Ward Eight, Harvey Foster.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, John M. Stebbins; Ward One, E. B. Haskell, John M. Stebbins, Stephen Morse; Ward Two, O. W. Wilcox, John Hooker, 3d, D. H. Brigham; Ward Three, Francis S. Graves, Rufus Elmer, E. W. Dickinson; Ward Four, Abel B. Howe, John W. Hunt, Jeremiah R. Cadwell; Ward Five, Nathaniel Howard, S. S. Holmes, E. F. Moseley; Ward Six, J. G. Carron; Ward Seven, Luther S. Lewis; Ward Eight, Samuel Webber.

CLERK—Thomas Chubbuck.

CITY CLERK AND TREASURER Joseph Ingraham.

CITY OFFICERS FOR 1856.

MAYOR—ANSEL PHELPS, JR.

ALDERMEN—Ward One, Samuel S. Day; Ward Two, Henry Fuller, Jr.; Ward Three, Edmund Freeman; Ward Four, Stephen C. Bemis; Ward Five, Thomas H. Allen; Ward Six, Henry Alexander, Jr.; Ward Seven, Henry Reynolds; Ward Eight, Samuel Webber.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, James Kirkham; Ward One, Charles O. Russell, Chauncey L. Covell, Hervey Hills; Ward Two, O. W. Wilcox, Henry A. Chapin, Dexter H. Brigham; Ward Three, Dr. Nathan Adams, Charles L. Shaw, George Whitney; Ward Four, James Kirkham, George Walker, John W. Hunt; Ward Five, Otis A. Seamans, E. F. Moseley, Nelson Tyler; Ward Six, Elbridge Barton; Ward Seven, William Smith; Ward Eight, Milton Foster.

CLERK—Charles O. Chapin.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICERS FOR 1857.

MAYOR—ANSEL PHELPS, JR.

ALDERMEN—Ward One, Samuel S. Day; Ward Two, Henry Fuller, Jr.; Ward Three, Henry Alexander, Jr.; Ward Four, Stephen C. Bemis; Ward Five, Joseph Hannis; Ward Six, James Warner; Ward Seven, Henry Pomroy; Ward Eight, Samuel Webber, Jr.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, George Walker; Ward One, Charles O. Russell, Chauncey L. Covell, James Stebbins; Ward Two, Erastus Hayes, Lyman King, Francis B. Bacon; Ward Three, Marvin Lincoln, Henry Avery, John R. Hixon; Ward Four, George Walker, Samuel Leonard, William Birnie; Ward Five, Charles Woodman, Luther Upton, George A. Otis; Ward Six, Elbridge Barton; Ward Seven, William Smith; Ward Eight, George A. Cooley.

CLERK—Charles O. Chapin.

CITY CLERK AND TREASURER—Joseph Ingraham.

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CITY OFFICERS FOR 1858.

MAYOR—ANSEL PHELPS, JR.

ALDERMEN—Ward One, Samuel S. Day; Ward Two, Henry Fuller, Jr.; Ward Three, Henry Alexander, Jr.; Ward Four, Stephen C. Bemis; Ward Five, Joseph Hannis; Ward Six, James Warner; Ward Seven, Henry Pomroy; Ward Eight, Samuel Webber, Jr. (resigned), E. A. Fuller.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, John R. Hixon; Ward One, Wilson Eddy, William Pynchon, William L. Smith; Ward Two, Randolph E. Ladd, Ambrose N. Merrick, Charles B. Trask; Ward Three, John R. Hixon, Henry A. Chapin, Gurdon Bill; Ward Four, Samuel Leonard, John W. Hunt, R. G. Shumway; Ward Five, Charles Woodman, George Swetland, John Brooks; Ward Six, Elbridge Barton; Ward Seven, Joseph Wheelock, Jr.; Ward Eight, Erastus King.

CLERK—Charles O. Chapin.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICERS FOR 1859.

MAYOR—WILLIAM B. CALHOUN.

ALDERMEN—Ward One, Chauncey L. Covell; Ward Two, Roger S. Moore; Ward Three, Edmund Freeman; Ward Four, Daniel L. Harris; Ward Five, William Hitchcock; Ward Six, J. G. Capron; Ward Seven, Horace Smith; Ward Eight, George W. Holt.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, A. N. Merrick (resigned in Ma[illegible]. Samuel Leonard; Ward One, Joshua M. Harrington, Justin M. Coole John V. Jones; Ward Two, George H. Roberts, Lewis H. Taylor, Gurdo[illegible] C. Judson; Ward Three, A. N. Merrick, Daniel Gay, Hosea C. Lombard; Ward Four, Samuel Leonard, Alfred Rowe, Reuben T. Safford; Ward Five, Theodore Bishop, Walter Maynard, Walter North; Ward Six, Isaac D. Gibbons; Ward Seven, Ransley Hall; Ward Eight, Warren L. Shaw.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICFRS FOR 1860.

MAYOR—DANIEL L. HARRIS.

ALDEDMEN—Ward One, Edmund B. Haskell; Ward Two, Erastus Hayes; Ward Three, Franklin Chamberlain; Ward Four, John W. Hunt; Ward Five, William Hitchcock; Ward Six, John G. Capron; Ward Seven, William Foster; Ward Eight, George W. Holt.

CLERK—Horace C. Lee.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, Joshua M. Harrington, H. S. Noyes, J. H. Demond; Ward Two, Lewis H. Taylor, George R. Townsley, Charles A. Winchester; Ward Three, William L. Wilcox, John Hamilton, Clark W. Bryan; Ward Four, N. A. Leonard, William Birnie, Alfred Rowe; Ward Five, William Higley, A. F. Strong, Charles Woodman; Ward Six, Robert Crossett; Ward Seven, Orrin Lombard; Ward Eight, Andrew J. Plumer.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Horace C. Lee.

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CITY OFFICERS FOR 1861.

MAYOR—STEPHEN C. BEMIS.

ALDERMEN—Ward One, Henry Gray; Ward Two, Ephriam W. Bond; Ward Three, H. N. Case; Ward Four, Nathaniel Howard; Ward Five, Charles Woodman; Ward Six, Amos Call; Ward Seven, William Smith; Ward Eight, A. J. Plumer.

CLERK—Horace C. Lee.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, H. J. Chapin, J. M. Cooley, J. H. Demond; Ward Two, Lewis H. Taylor, D. H. Brigham, F. B. Bacon; Ward Three, William L. Wilcox, John Hamilton, James M. Skiff; Ward Four, N. A. Leonard, John W. Bliss, Alfred Rowe; Ward Five, William Higley, Otis A. Seamans, A. W. Allen; Ward Six, Aaron C. Barton; Ward Seven, Henry Reynolds; Ward Eight, H. E. Moseley.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Horace C. Lee.

CITY OFFICERS FOR 1862.

MAYOR—STEPHEN C. BEMIS.

ALDERMEN—Ward One, Henry Gray; Ward Two, E. W. Bond; Ward Three, H. N. Case; Ward Four, T. W. Wason; Ward Five, Horace Kibbe; Ward Six, Horace Smith; Ward Seven, William Smith; Ward Eight, H. S. Evans.

CLERK—S. B. Spooner, Jr.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, Horace J. Chapin, L. O. Hanson, L. J. Powers; Ward Two, Sylvester Day, Tim Henry, Eli H. Patch; Ward Three, James M. Skiff, J. E. Taylor, A. F. Jennings; Ward Four, N. A. Leonard, Alfred Rowe, T. M. Walker; Ward Five, P. V. B. Havens, George K. Jacobs, George K. Charter; Ward Six, Aaron C. Barton; Ward Seven, Ezekiel Keith; Ward Eight, H. E. Moseley.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Samuel B. Spooner (resigned September 30), A. T. Folsom.

CITY OFFICERS FOR 1863.

MAYOR—HENRY ALEXANDER, JR.

ALDERMEN—Ward One, Justin M. Cooley; Ward Two, William Patton; Ward Three, William K. Baker; Ward Four, Daniel L. Harris; Ward Five, William Bodurtha; Ward Six, Horace Smith; Ward Seven, Virgil Perkins; Ward Eight, Andrew J. Plumer.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, N. W. Talcott, George S. Haskell, Luther Clark; Ward Two, O. H. Greenleaf, G. R. Townsley, John West; Ward Three, Aaron G. Lord, James M. Skiff, Francis S. Graves; Ward Four, N. A. Leonard, A. L. Soule, Henry S. Lee; Ward Five, Cheney Bigelow, George K. Charter (resigned), Charles Phelps, Orlando Chapin (resigned), William Collins; Ward Six, J. G. Chase; Ward Seven, C. P. L. Warner; Ward Eight, Hiram Warner.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1864.

MAYOR—HENRY ALEXANDER, JR.

ALDERMEN—Ward One, Norman W. Talcott; Ward Two, William Patton; Ward Three, Albert D. Briggs; Ward Four, Frederick H. Harris; Ward Five, Charles Barrows; Ward Six, Warren H. Wilkinson; Ward Seven, Virgil Perkins; Ward Eight, Harvey E. Moseley.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, Henry S. Hyde, John Mulligan, Charles H. Allen; Ward Two, O. H. Greenleaf, G. R. Townsley, J. F. Tannatt; Ward Three, Charles A. Winchester, W. H. Smith, A. N. Merrick; Ward Four, N. A. Leonard, A. L. Soule, Henry S. Lee; Ward Five, Charles Phelps, William Collins, S. W. Porter; Ward Six, L. H. Taylor; Ward Seven, Peter Valentine; Ward Eight, George Foster.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1865.

MAYOR—ALBERT D. BRIGGS.

ALDERMEN—Ward One, Henry S. Hyde; Ward Two, George R. Townsley; Ward Three, Otis Childs; Ward Four, Frederick H. Harris; Ward Five, Charles Barrows; Ward Six, Warren H. Wilkinson; Ward Seven, Virgil Perkins; Ward Eight, Andrew J. Plumer.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, John Mulligan, W. H. Allis, H. S. Noyes; Ward Two, Gideon Wells, John Olmsted, J. F. Tannatt; Ward Three, William H. Smith, J. F. Tapley, H. N. Tinkham; Ward Four, N. A. Leonard, Henry S. Lee, S. J. Hall; Ward Five, Charles Phelps, S. W. Porter, J. Q. A. Sexton; Ward Six, Gustavus D. Tapley; Ward Seven, Rawson Hathaway; Ward Eight, George Foster.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1866.

MAYOR—ALBERT D. BRIGGS.

ALDERMEN—Ward One, William Pynchon; Ward Two, D. H. Brigham; Ward Three, Tim Henry; Ward Four, F. H. Harris; Ward Five, G. W. Harrison; Ward Six, W. H. Wilkinson; Ward Seven, John G. Taylor (died), Rawson Hathaway; Ward Eight, John Severson.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, William L. Smith; Ward One, J. H. Demond, Warren Emerson, J. C. McIntosh; Ward Two, Gideon Wells, H. M. Morehouse, George Dwight, Jr.; Ward Three, H. N. Tinkham, William H. Smith, Joseph H. Damon; Ward Four, D. B. Wesson, William L. Smith, W. S. Marsh; Ward Five, Charles Phelps, S. W. Porter, Charles Chapman; Ward Six, Gustavus D. Tapley; Ward Seven, John M. Meggett; Ward Eight, Samuel Mills.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1861.

MAYOR—STEPHEN C. BEMIS.

ALDERMEN—Ward One, Henry Gray; Ward Two, Ephriam W. Bond; Ward Three, H. N. Case; Ward Four, Nathaniel Howard; Ward Five, Charles Woodman; Ward Six, Amos Call; Ward Seven, William Smith; Ward Eight, A. J. Plumer.

CLERK—Horace C. Lee.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, H. J. Chapin, J. M. Cooley, J. H. Demond; Ward Two, Lewis H. Taylor, D. H. Brigham, F. B. Bacon; Ward Three, William L. Wilcox, John Hamilton, James M. Skiff; Ward Four, N. A. Leonard, John W. Bliss, Alfred Rowe; Ward Five, William Higley, Otis A. Seamans, A. W. Allen; Ward Six, Aaron C. Barton; Ward Seven, Henry Reynolds; Ward Eight, H. E. Moseley.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Horace C. Lee.

CITY OFFICERS FOR 1862.

MAYOR—STEPHEN C. BEMIS.

ALDERMEN—Ward One, Henry Gray; Ward Two, E. W. Bond; Ward Three, H. N. Case; Ward Four, T. W. Wason; Ward Five, Horace Kibbe; Ward Six, Horace Smith; Ward Seven, William Smith; Ward Eight, H. S. Evans.

CLERK—S. B. Spooner, Jr.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, Horace J. Chapin, L. O. Hanson, L. J. Powers; Ward Two, Sylvester Day, Tim Henry, Eli H. Patch; Ward Three, James M. Skiff, J. E. Taylor, A. F. Jennings; Ward Four, N. A. Leonard, Alfred Rowe, T. M. Walker; Ward Five, P. V. B. Havens, George K. Jacobs, George K. Charter; Ward Six, Aaron C. Barton; Ward Seven, Ezekiel Keith; Ward Eight, H. E. Moseley.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Samuel B. Spooner (resigned September 30), A. T. Folsom.

CITY OFFICERS FOR 1863.

MAYOR—HENRY ALEXANDER, JR.

ALDERMEN—Ward One, Justin M. Cooley; Ward Two, William Patton; Ward Three, William K. Baker; Ward Four, Daniel L. Harris; Ward Five, William Bodurtha; Ward Six, Horace Smith; Ward Seven, Virgil Perkins; Ward Eight, Andrew J. Plumer.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, N. W. Talcott, George S. Haskell, Luther Clark; Ward Two, O. H. Greenleaf, G. R. Townsley, John West; Ward Three, Aaron G. Lord, James M. Skiff, Francis S. Graves; Ward Four, N. A. Leonard, A. L. Soule, Henry S. Lee; Ward Five, Cheney Bigelow, George K. Charter (resigned), Charles Phelps, Orlando Chapin (resigned), William Collins; Ward Six, J. G. Chase; Ward Seven, C. P. L. Warner; Ward Eight, Hiram Warner.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1864.

MAYOR—HENRY ALEXANDER, JR.

ALDERMEN—Ward One, Norman W. Talcott; Ward Two, William Patton; Ward Three, Albert D. Briggs; Ward Four, Frederick H. Harris; Ward Five, Charles Barrows; Ward Six, Warren H. Wilkinson; Ward Seven, Virgil Perkins; Ward Eight, Harvey E. Moseley.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, Henry S. Hyde, John Mulligan, Charles H. Allen; Ward Two, O. H. Greenleaf, G. R. Townsley, J. F. Tannatt; Ward Three, Charles A. Winchester, W. H. Smith, A. N. Merrick; Ward Four, N. A. Leonard, A. L. Soule, Henry S. Lee; Ward Five, Charles Phelps, William Collins, S. W. Porter; Ward Six, L. H. Taylor; Ward Seven, Peter Valentine; Ward Eight, George Foster.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1865.

MAYOR—ALBERT D. BRIGGS.

ALDERMEN—Ward One, Henry S. Hyde; Ward Two, George R. Townsley; Ward Three, Otis Childs; Ward Four, Frederick H. Harris; Ward Five, Charles Barrows; Ward Six, Warren H. Wilkinson; Ward Seven, Virgil Perkins; Ward Eight, Andrew J. Plumer.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, John Mulligan, W. H. Allis, H. S. Noyes; Ward Two, Gideon Wells, John Olmsted, J. F. Tannatt; Ward Three, William H. Smith, J. F. Tapley, H. N. Tinkham; Ward Four, N. A. Leonard, Henry S. Lee, S. J. Hall; Ward Five, Charles Phelps, S. W. Porter, J. Q. A. Sexton; Ward Six, Gustavus D. Tapley; Ward Seven, Rawson Hathaway; Ward Eight, George Foster.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1866.

MAYOR—ALBERT D. BRIGGS.

ALDERMEN—Ward One, William Pynchon; Ward Two, D. H. Brigham; Ward Three, Tim Henry; Ward Four, F. H. Harris; Ward Five, G. W. Harrison; Ward Six, W. H. Wilkinson; Ward Seven, John G. Taylor (died), Rawson Hathaway; Ward Eight, John Severson.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, William L. Smith; Ward One, J. H. Demond, Warren Emerson, J. C. McIntosh; Ward Two, Gideon Wells, H. M. Morehouse, George Dwight, Jr.; Ward Three, H. N. Tinkham, William H. Smith, Joseph H. Damon; Ward Four, D. B. Wesson, William L. Smith, W. S. Marsh; Ward Five, Charles Phelps, S. W. Porter, Charles Chapman; Ward Six, Gustavus D. Tapley; Ward Seven, John M. Meggett; Ward Eight, Samuel Mills.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1867.

MAYOR—ALBERT D. BRIGGS.

ALDERMEN—Ward One, John Mulligan; Ward Two, Tim Henry; Ward Three, H. N. Tinkham; Ward Four, F. H. Harris; Ward Five, Samuel W. Porter; Ward Six, Amos Call; Ward Seven, Rawson Hathaway; Ward Eight, John Severson.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, William L. Smith; Ward One, J. C. McIntosh, Warren Emerson, J. H. Demond; Ward Two, H. M. Morehouse, C. S. Hurlbut, L. A. Tifft; Ward Three, Charles Marsh, H. K. W. Dickinson, P. S. Bailey; Ward Four, W. L. Smith, W. S. Marsh, L. J. Powers; Ward Five, Charles Chapman, A. H. Clark, J. S. Brown; Ward Six, Charles A. Call; Ward Seven, E. W. Clark; Ward Eight, Samuel Mills.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1868.

MAYOR—CHARLES A. WINCHESTER.

ALDERMEN—Ward One, John Mulligan; Ward Two, Tim Henry; Ward Three, H. N. Tinkham; Ward Four, W. S. Marsh; Ward Five, Samuel W. Porter; Ward Six, Amos Call; Ward Seven, E. W. Clark; Ward Eight, Milo Chapin.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, Warren Emerson, Josiah Bumstead, Roswell Lee; Ward Two, O. H. Greenleaf, Charles R. Ladd, Lewis A. Tifft; Ward Three, E. H. Patch, A. J. McIntosh, William H. Smith; Ward Four, Henry S. Lee, E. G. Norton, M. A. Clyde; Ward Five, Cyrus E. Buckland, Alden Warner, William R. Purple; Ward Six, George E. Howard; Ward Seven, Charles Gage; Ward Eight, George Swetland.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1869.

MAYOR—CHARLES A. WINCHESTER.

ALDERMEN—Ward One, J. M. Cooley; Ward Two, George Dwight; Ward Three, William H. Smith; Ward Four, W. S. Marsh; Ward Five, Joseph M. Hall; Ward Six, George E. Howard; Ward Seven, Charles Gage; Ward Eight, Charles J. Goodwin.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, George M. Atwater, Josiah Bumstead, John Olmsted; Ward Two, Charles R. Ladd, O. H. Greenleaf, C. C. Smith; Ward Three, A. J. McIntosh, E. H. Patch, J. H. Appleton; Ward Four, Henry S. Lee, E. G. Norton, L. J. Powers; Ward Five, Alden Warner, E. B. Haskell, W. P. Taylor; Ward Six, I. P. Dickinson; Ward Seven, William H. Pinney; Ward Eight, George Swetland.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1870.

MAYOR—WILLIAM L. SMITH.

ALDERMEN—Ward One, J. A. Rumrill; Ward Two, Eliphalet Trask; Ward Three, Dr. John Hooker; Ward Four, Willis Phelps; Ward Five, Joseph M. Hall; Ward Six, I. P. Dickinson; Ward Seven, William H. Pinney; Ward Eight, George Foster.

CLERK A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, Albert Holt, A. D. Day, C. B. Holbrook; Ward Two, George Dwight, Jr., James S. Bourke, David Legro; Ward Three, James E. McIntire, George W. Tapley, George S. Lewis; Ward Four, Henry S. Lee, Gurdon Bill, S. R. Phillips; Ward Five, Charles Phelps, William B. Miller, T. B. Wilson; Ward Six, George E. Howard; Ward Seven, John A. Hall; Ward Eight, Alfred S. Packard.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1871.

MAYOR—WILLIAM L. SMITH.

ALDERMEN—Ward One, Josiah Bumstead; Ward Two, Charles R. Ladd; Ward Three, Lawson Sibley; Ward Four, James M. Thompson; Ward Five, Richard F. Hawkins; Ward Six, Isaac P. Dickinson; Ward Seven, John A. Hall; Ward Eight, Noyes Barstow.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, Albert Holt, P. W. Brewster, F. J. Donahue; Ward Two, Milton Bradley, Tilly Haynes, R. Warren; Ward Three, B. C. English, S. B. Spooner, N. C. Newell; Ward Four, Henry S. Lee, Henry M. Phillips, E. A. Perkins; Ward Five, T. B. Wilson, J. C. Perry, E. B. Maynard; Ward Six, George E. Howard; Ward Seven, J. W. Lull; Ward Eight, George Swetland.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1872.

MAYOR—SAMUEL B. SPOONER.

ALDERMEN—Ward Two, Charles R. Ladd; Ward Three, William H. Smith; Ward Four, Emerson Wight; Ward Five, Joseph M. Hall, R. F. Hawkins; Ward Six, George E. Howard; Ward Seven, William H. Pinney; Ward Eight, Noyes Barstow.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, M. P. Knowlton; Ward One, F. J. Donahue, L. H. Powers, N. W. Fisk; Ward Two, O. H. Greenleaf, George W. Ray, Henry F. Trask; Ward Three, N. C. Newell, Samuel Palmer, George M. Smith; Ward Four, E. A. Perkins, H. M. Phillips, V. N. Taylor; Ward Five, M. P. Knowlton, E. B. Maynard, P. H. M. Brooks; Ward Six, E. A. Newell; Ward Seven, J. W. Lull; Ward Eight, W. L. Converse.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom

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CITY OFFICERS FOR 1879.

MAYOR—LEWIS J. POWERS.

ALDERMEN—Ward One, John Olmsted; Ward Two, George Dwight; Ward Three, J. F. Tapley; Ward Four, George W. Tapley; Ward Five, Benjamin Hannis; Ward Six, George R. Dickinson; Ward Seven, E. W. Ladd; Ward Eight, H. K. Wight.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, J. R. Smith; Ward One, John Mulligan, E. Belding, J. W. Baldwin; Ward Two, E. H. Phelps, Horace Jacobs, F. A. Judd; Ward Three, J. R. Smith, Elijah Nichols, Frank E. Winter; Ward Four, Henry A. Gould, George B. Holbrook, C. J. Sanderson; Ward Five, N. W. Howard, S. L. Hodgdon, M. J. Chamberlain; Ward Six, E. M. Lombard; Ward Seven, Charles Taylor; Ward Eight, F. M. Bardwell.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1880.

MAYOR—LEWIS J. POWERS.

ALDERMEN—Ward One, John Olmsted; Ward Two, S. C. Warriner; Ward Three, J. F. Tapley; Ward Four, George W. Tapley; Ward Five, Benjamin Hannis; Ward Six, George R. Dickinson; Ward Seven, E. W. Ladd; Ward Eight, H. K. Wight.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Elijah Belding; Ward One, E. Belding, Ethan C. Robinson, Harlan P. Stone; Ward Two, Fred A. Judd, E. H. Young, E. M. Bartlett; Ward Three, Elijah Nichols, Frank E. Winter, Emory Meekins; Ward Four, George B. Holbrook, Charles J. Sanderson, William H. Haile; Ward Five, Nathaniel W. Howard, Sewall L. Hodgdon, James D. Gill; Ward Six, Edward M. Lombard; Ward Seven, Charles Taylor; Ward Eight, Frank M. Bardwell.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1881.

MAYOR—WILLIAM H. HAILE.

ALDERMEN—Ward One, Elijah Belding; Ward Two, Stephen E. Seymour; Ward Three, Elijah Nichols; Ward Four, Edward P. Chapin; Ward Five, Oscar D. Adams; Ward Six, Edward M. Lombard; Ward Seven, George Nye; Ward Eight, H. K. Wight.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Charles J. Sanderson; Ward One, Harlan P. Stone, Hoyt E. Howard, Henry J. Beebe; Ward Two, Fred A. Judd, Edwin M. Bartlett, John Lobsitz; Ward Three, George P. Stebbins, Jacob C. Lutz, Simpson Clark; Ward Four, Charles J. Sanderson, William B. Walker, Edmund P. Kendrick; Ward Five, James D. Gill, Henry Dana, James F. Brierly; Ward Six, Albert E. Foth; Ward Seven, William C. Bemis; Ward Eight, George Foster.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1882.

MAYOR—EDWIN W. LADD.

ALDERMEN—Ward One, Henry D. Carroll; Ward Two, Stephen E. Seymour; Ward Three, Elijah Nichols; Ward Four, Edward P. Chapin; Ward Five, Oscar D. Adams; Ward Six, Edward M. Lombard; Ward Seven, George Nye; Ward Eight, Davenport L. Fuller.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, Edmund P. Kendrick; Ward One, Harlan P. Stone, Henry J. Beebe, Ethan C. Robinson; Ward Two, Fred A. Judd, Frank M. Bugbee, Frank E. Carpenter; Ward Three, Simpson Clark, Jacob C. Lutz, James D. Parsons; Ward Four, Edmund P. Kendrick, James C. Alden, Edward C. Rogers; Ward Five, Henry Dana, Charles E. Dodge, Charles Fuller; Ward Six, George McGregory; Ward Seven, John S. Sanderson; Ward Eight, Edward D. Chapman.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1883.

MAYOR—HENRY M. PHILLIPS.

ALDERMEN—Ward One, Harlan P. Stone; Ward Two, Fred A. Judd; Ward Four, James Kirkham; Ward Four, James C. Alden; Ward Five, James D. Gill; Ward Six, Charles A. Call; Ward Seven, George Nye; Ward Seven, John S. Sanderson.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, E. P. Kendrick; Ward One, Charles McKay, J. F. Callanan, John L. Knight; Ward Two, Frank E. Carpenter, Frank M. Bugbee, James A. Bill, Jr.; Ward Three, Jacob C. Lutz, Simpson Clark, W. F. Cook; Ward Four, Edmund P. Kendrick, Edward C. Rogers, Thomas D. Lyon; Ward Five, George H. Wells, James Kimball, Whiteman T. Steere; Ward Six, Oscar S. Greenleaf; Ward Seven, George W. Hall; Ward Eight, John Rivers.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1884.

MAYOR—HENRY M. PHILLIPS.

ALDERMEN—Ward Two, Andrew Y. Beach; Ward Three, Jacob C. Lutz; Ward Four, George W. Tapley; Ward Five, Henry M. Brewster; Ward Six, Charles A. Call; Ward Seven, George Nye, John S. Sanderson; Ward Eight, Davenport L. Fuller.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Edward C. Rogers; Ward One, Henry L. Whitcomb, John L. Knight, Patrick C. O'Connor; Ward Two, Hosea C. Lombard, James A. Bill, Jr., James N. Dodge; Ward Three, Simpson Clark, George F. Clark, James S. Adams; Ward Four, Edward C. Rogers, Charles L. Long, Thomas D. Lyon; Ward Five, George H. Wells, James Kimball, J. H. Hendrick; Ward Six, Oscar S. Greenleaf; Ward Seven, George W. Hall; Ward Eight, John Rivers.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1885.

MAYOR—HENRY M. PHILLIPS.

ALDERMEN—Ward One, John L. Knight; Ward Two, Andrew Y. Beach; Ward Three, Jacob C. Lutz; Ward Four, Daniel P. Crocker; Ward Five, Charles Taylor; Ward Six, Charles A. Call; Ward Seven, John S. Sanderson; Ward Eight, George W. Miller.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Charles L. Long; Ward One, George E. Frink, James F. Bidwell, Henry M. Castle; Ward Two, James A. Bill, Jr., Hosea C. Lombard, Edwin F. Lyford; Ward Three, Edgar C. Whittemore, Richard D. Whitney, John H. Clune; Ward Four, Henry H. Bowman, Charles L. Long, Alfred N. Mayo; Ward Five, George H. Wells, Joel H. Hendrick, James Kimball; Ward Six, Oscar S. Greenleaf; Ward Seven, Richard W. Pinney; Ward Eight, Horatio E. D. Green.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1886.

MAYOR—EDWIN D. METCALF.

ALDERMEN—President, Andrew Y. Beach; Ward One, James F. Bidwell; Ward Two, Andrew Y. Beach; Ward Three, George B. Holbrook; Ward Four, George W. Tapley; Ward Five, Joel H. Hendrick; Ward Six, Walter H. Wesson; Ward Seven, Richard W. Pinney; Ward Eight, George W. Miller.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Charles L. Long; Ward One, George E. Frink, Charles A. Fisk, R. Hale Smith; Ward Two, James A. Bill, Jr., Edwin F. Lyford, Samuel J. Whyte; Ward Three, John H. Clune, Claudius C. Margerum, William F. Callender; Ward Four, Charles L. Long, Henry H. Bowman, Alfred N. Mayo; Ward Five, Thomas S. Stewart, Edward S. Bradford, Marcus M. Kendall; Ward Six, William L. Dickinson; Ward Seven, George W. Hall; Ward Eight, Horatio E. D. Green.

CLERK - E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1887.

MAYOR—E. B. MAYNARD.

ALDERMEN—President, James F. Bidwell; Ward One, James F. Bidwell; Ward Two, Frank M. Bugbee; Ward Three, William F. Callender; Ward Four, William H. Wright; Ward Five, Sherman D. Porter; Ward Six, William L. Dickinson; Ward Seven, Richard W. Pinney; Ward Eight, John Rivers.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, Henry H. Bowman; Ward One, Frederick H. Stebbins, John Dollan, Frank C. Leonard; Ward Two, Frank S. Crane, James A. Bill, Jr., Newrie D. Winter; Ward Three, Claudius C. Margerum, James E. Dunleavy, Howard N. Newell; Ward Four, Henry H. Bowman, William W. More, Charles E. Brown; Ward Five, Edward S. Bradford, Marcus M. Kendall, William C. Newell; Ward Six, Edward J. Flannery; Ward Seven, Landomer E. Pease; Ward Eight, James H. Morley.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1888.

MAYOR—E. B. MAYNARD.

ALDERMEN—President, Frank M. Bugbee; Ward One, John C. McIntosh; Ward Two, Frank M. Bugbee; Ward Three, Lawson Sibley, Ward Four, William H. Wright; Ward Five, Sherman D. Porter; Ward Six, William L. Dickinson; Ward Seven, Richard W. Pinney; Ward Eight, John Rivers.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Newrie D. Winter; Ward One, Frederick H. Stebbins, Frank C. Leonard, George W. Turner; Ward Two, Newrie D. Winter, Charles C. Parkhurst, Edward F. Tower; Ward Three, James E. Dunleavy, Frederick S. Newman, Leonard Schadt; Ward Four, William W. More, Charles E. Brown, George Leonard; Ward Five, Edward S. Bradford, Marcus M. Kendall, James W. Anderson; Ward Six, Edward J. Flannery; Ward Seven, Charles E. Ladd; Ward Eight, E. A. Grise.

CLERK—Tom Fitzgibbon.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1889.

MAYOR—EDWARD S. BRADFORD.

ALDERMEN—President, John C. McIntosh; Ward One, John C. McIntosh; Ward Two, Charles C. Parkhurst; Ward Three, Herbert C. Puffer; Ward Four, John A. Murphy; Ward Five, John McFethries; Ward Six, Henry S. Dickinson; Ward Seven, George W. Hall; Ward Eight, Orson Moulton.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, George Leonard; Ward One, George W. Turner, Leroy Z. Cutler, William F. Ray; Ward Two, Waldo R. Forrester, Francke W. Dickinson, Dr. George E. Foster; Ward Three, Leonard Schadt, Jacob G. Lutz, John P. Casman; Ward Four, William W. More, George Leonard, Charles Van Vlack; Ward Five, Milan W. Bull, Ruel R. Nickerson, Thomas H. Benton; Ward Six, Cornelius W. Phillips; Ward Seven, Charles E. Ladd; Ward Eight, Loren W. King.

CLERK—Andrew O. McGarrett.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1890.

MAYOR—EDWARD S. BRADFORD.

ALDERMEN—President, Henry S. Dickinson; Ward One, George W. Turner; Ward Two, Charles C. Parkhurst; Ward Three, George B. Holbrook; Ward Four, John A. Murphy; Ward Five, Edmund P. Kendrick; Ward Six, Henry S. Dickinson; Ward Seven, George W. Hall; Ward Eight, Orrin E. Tilley.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, George Leonard; Ward One, Leroy Z. Cutler, William F. Ray, Louis C. Hyde, Ward Two, Francke W. Dickinson, George D Fisk, John B. King; Ward Three, John P. Casman, Arthur A. Couch, George J. Seuss; Ward Four, George Leonard, Charles Van Vlack, Frederick H. Gillett; Ward Five, Milan W. Bull, George H. Clark, George H. Kemater; Ward Six, Cornelius W. Phillips; Ward Seven, Benjamin C. Harvey; Ward Eight, Charles E. Jennings.

CLERK—Andrew O. McGarrett.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

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CITY OFFICERS FOR 1891.

MAYOR—EDWARD S. BRADFORD.

ALDERMEN—President, John A. Murphy; Ward One, Louis C. Hyde; Ward Two, Charles C. Parkhurst; Ward Three, George B. Holbrook; Ward Four, John A. Murphy; Ward Five, Edward H. Lathrop; Ward Six, Frederick Harris; Ward Seven, Benjamin C. Harvey; Ward Eight, Orrin E. Tilley.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Francke W. Dickinson; Ward One, Henry E. Marsh, John McDonald, Charles H. Mulligan; Ward Two, Francke W. Dickinson, John B. King, Dwight O. Gilmore; Ward Three, George J. Seuss, Charles W. Turk, Jeremiah F. Mahoney; Ward Four, Charles Van Vlack, W. F. Adams, James D. Norton; Ward Five, Milan W. Bull, George H. Clark, George H. Kemater; Ward Six, George M. Stebbins; Ward Seven, Thomas A. Holland; Ward Eight, Charles E. Jennings.

CLERK—Andrew O. McGarrett.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1892.

MAYOR—LAWSON SIBLEY.

ALDERMEN—President, Frederick Harris; Ward One, Louis C. Hyde; Ward Two, Frank E. Carpenter; Ward Three, Claudius C. Margerum; Ward Four, Charles M. Mather; Ward Five, Samuel D. Sherwood; Ward Six, Frederick Harris; Ward Seven, Benjamin C. Harvey; Ward Eight, Leonard B. Richardson.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, James D. Norton; Ward One, William P. Hayes, Charles H. Mulligan, Henry W. Sexton; Ward Two, Edwin A. Carter, Dwight O. Gilmore, James J. Sullivan; Ward Three, George J. Seuss, Jeremiah F. Mahoney, John Sharrocks; Ward Four, W. F. Adams, James D. Norton, Charles E. Stickney; Ward Five, William M. Gray, William A. Harris, Stillman L. Tuttle; Ward Six, George M. Stebbins; Ward Seven, Thomas A. Holland; Ward Eight, Henry A. Braman.

CLERK—Andrew O. McGarrett. (resigned)—Wm. E. Gilbert.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1893.

MAYOR—EDMUND P. KENDRICK.

ALDERMEN—President, George Nye; Ward One, Olin H. Smith; Ward Two, Dwight O. Gilmore; Ward Three, Claudius C. Margerum; Ward Four, Henry H. Bowman; Ward Five, George Nye; Ward Six, Nathan D. Bill; Ward Seven, Benjamin C. Harvey; Ward Eight, Leonard B. Richardson.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, James D. Norton; Ward One, William P. Hayes, Charles H. Mulligan, Winford N. Caldwell; Ward Two, Walter G. Morse, Charles W. Perkins, George B. Rathbun; Ward Three, Harry P. Elsey, George F. Sessions, Charles Workheiser; Ward Four, W. F. Adams, James D. Norton, Charles E. Stickney; Ward Five, William A. Harris, Edwin S. Field, Frederick B. Miller; Ward Six, Eugene Young; Ward Seven, William H. Gage; Ward Eight, Merrill E. Streeter.

CLERK—William E. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—E. T. Tifft.

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CITY OFFICERS FOR 1894.

MAYOR—EDMUND P. KENDRICK.

ALDERMEN—President, Henry H. Bowman; Ward One, Olin H. Smith; Ward Two, Dwight O. Gilmore; Ward Three, Gustave Remkus; Ward Four, Henry H. Bowman; Ward Five, George A. Russell; Ward Six, Claudius C. Margerum; Ward Seven, Daniel W. Ware; Ward Eight, Merrill E. Streeter.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, George F. Sessions; Ward One, William C. Hayes, Charles L. Burr, George F. Fuller; Ward Two, Maurice P. Cavanaugh, Charles W. Perkins, Frank H. Elwell; Ward Three, Harry P. Elsey, George F. Sessions, Robert A. Grant; Ward Four, Howard A. Gibbs, Robert A. Knight, Paul R. Hawkins; Ward Five, Edwin S. Field, Frederick B. Miller, Fred C. Wright; Ward Six, Edward C. Hamilton; Ward Seven, William S. Bemis; Ward Eight, Philip C. Sullivan.

CLERK—William E. Gilbert.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1895.

MAYOR—CHARLES L. LONG.

ALDERMEN—President, George A. Russell; Ward One, George F. Fuller; Ward Two, Albert E. Foth; Ward Three, Gustave Remkus; Ward Four, Henry L. Gaylord; Ward Five, George A. Russell; Ward Six, Walter P. Goodenough; Ward Seven, Daniel W. Ware; Ward Eight, Merrill E. Streeter.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Robert A. Knight; Ward One, Charles L. Burr, Lewis D. Robinson, Willard F. Tripp; Ward Two, Maurice P. Cavanaugh, Frank H. Elwell, Charles D. Rathbun; Ward Three, Adin W. Bangs, Robert A. Grant, George W. D. Upton; Ward Four, Howard A Gibbs, Paul R. Hawkins, Robert A. Knight; Ward Five, Albert P. Casey, Augustus A. Howard, Frederick B. Miller; Ward Six, Edward C. Hamilton; Ward seven, Charles E. Ladd; Ward Eight, John R. Reed.

CLERK—William E. Gilbert.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1896.

MAYOR—NEWRIE D. WINTER.

ALDERMEN—President, Henry S. Dickinson; Ward One, Charles L. Burr; Ward Two, Dwight O. Gilmore; Ward Three, George J. Seuss; Ward Four, Henry S. Dickinson; Ward Five, Charles H. Parsons; Ward Six, Charles Rogers; Ward Seven, Charles E. Ladd; Ward Eight, Octave A. La Riviere.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Maurice P. Cavanaugh; Ward One, Frank H. Bills, William J. McCann, Willard F. Tripp; Ward Two, Maurice P. Cavanaugh, Harry C. Collins, Charles T. Winchester; Ward Three, Henry D. Marsh, Frank D. Quilty, George W. D. Upton; Ward Four, Ralph W. Ellis, Zera W. Smith, Fred H. Sturtevant; Ward Five, Frank W. Barker, Augustus A. Howard, Edward R. Lee; Ward Six, Frank D. Kemp; Ward Seven, William W. Bartlett; Ward Eight, Charles O. Churchill.

CLERK—William E. Gilbert.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

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CITY OFFICERS FOR 1897.

MAYOR—HENRY S. DICKINSON.

ALDERMEN—President, Dwight O. Gilmore; Ward One, Willard F. Tripp; Ward Two, Charles H. Mulligan; Ward Three, Dwight O. Gilmore; Ward Four, Ralph W. Ellis; Ward Five, Charles C. Lewis; Ward Six, Edward C. Hamilton; Ward Seven, Charles E. Brown; Ward Eight, Homer D. Packard.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Frank W. Barker; Ward One, Orville A. Dodge, Lewis D. Robinson; Ward Two, Luke J. Coogan, Henry D. Shaw, Harry J. Vesper; Ward Three, Charles H. Dunham, Frank H. Elwell; Ward Four, Lewis F. Carr, Charles E. Newell; Ward Five, Frank W. Barker, Stanford L. Haynes; Ward Six, Fred A. Bearse, Dennis Casey, Jr.; Ward Seven, George A. Bacon, William W. Bartlett; Ward Eight, Charles O. Churchill, Alexander C. Methven, Fordis C. Parker.

CLERK—William E. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1898.

MAYOR—HENRY S. DICKINSON.

ALDERMEN—President, Dwight O. Gilmore; Ward One, Lewis D. Robinson; Ward Two, Charles H. Mulligan; Ward Three, Dwight O. Gilmore; Ward Four, Ralph W. Ellis; Ward Five, Charles C. Lewis; Ward Six, Edward C. Hamilton; Ward Seven, Charles E. Brown; Ward Eight, Homer D. Packard.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Fordis C. Parker; Ward One, Orville A. Dodge, Franklin A. Latimer, Jr.; Ward Two, Luke J. Coogan, Matthew R. Mansfield, William A. Strange; Ward Three, Edward T. Davis, Harry H. Parkhurst; Ward Four, Lewis F. Carr, Charles E. Newell; Ward Five, Fordis C. Parker, Stanford L. Haynes; Ward Six, Fred A. Bearse, Samuel M. Jones; Ward Seven, George A. Bacon, Seth J. Buckland; Ward Eight, Albert E. W. Drake, Alexander C. Methven, William F. Mundell.

CLERK—William E. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1899.

MAYOR—DWIGHT O. GILMORE.

ALDERMEN—President, Charles H. Mulligan; Ward One, Franklin A. Latimer, Jr.; Ward Two, Charles H. Mulligan; Ward Three, Frank H. Elwell; Ward Four, Edwin A. Blodgett; Ward Five, Fordis C. Parker; Ward Six, Fred. A. Bearse; Ward Seven, Julius F. Carman; Ward Eight, Alexander C. Methven.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Fred O. Clapp; Ward One, Fred O. Clapp, Edwin B. Woodin; Ward Two, Luke J. Coogan, Patrick J. McCarty, Patrick J. Mitchell; Ward Three, Gottlieb Baer, George W. D. Upton; Ward Four, Lincoln C. Haynes, William W. Tapley; Ward Five, Theodore F. Dwight, Charles A. Wright; Ward Six, Frederick S. Ladd, George Smith; Ward Seven, Albert G. Bennett, Jr., Seth J. Buckland; Ward Eight, Albert E. W. Drake, William F. Mundell, Woodward E. Murkland.

CLERK—William E. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1900.

MAYOR—WILLIAM P. HAYES.

ALDERMEN—President, Edwin A. Blodgett; Ward One, Fred O. Clapp; Ward Two, Henry W. Fitch; Ward Three, Frank H. Elwell; Ward Four, Edwin A. Blodgett; Ward Five, Fordis C. Parker; Ward Six, Fred A. Bearse; Ward Seven, Julius F. Carman; Ward Eight, Alexander C. Methven.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Albert G. Bennett, Jr.; Ward One, Clifford P. Kibbe, William E. Sanderson; Ward Two, Patrick J. Mitchell, James E. Dunn, John M. Sullivan; Ward Three, George W. D. Upton, Napoleon L. Byron; Ward Four, William W. Tapley, F. Winthrop Edwards; Ward Five, Theodore F. Dwight, George Nye, Jr.; Ward Six, George Smith, Eugene M. Tinkham; Ward Seven, Albert G. Bennett, Jr., William A. Newton; Ward Eight, William F. Mundell, Oliver E. Hines, Everett E. Stone.

CLERK—William E. Gilbert (resigned), H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1901.

MAYOR—WILLIAM P. HAYES.

ALDERMEN—President, Fred O. Clapp; Ward One, Fred O. Clapp; Ward Two, Henry W. Fitch; Ward Three, Henry D. Marsh; Ward Four, William W. Tapley; Ward Five, Henry H. Bosworth; Ward Six, Frank D. Kemp; Ward Seven, Albert G. Bennett, Jr.; Ward Eight, Edward J. Murphy.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Everett E. Stone; Ward One, Clifford P. Kibbe, William E. Sanderson; Ward Two, Patrick J. Mitchell, James E. Dunn, Patrick J. Delaney; Ward Three, George H. McClean, William W. Warren; Ward Four, F. Winthrop Edwards, Henry P. Norris; Ward 5, Calvin S. Whitcomb, George Nye, Jr.; Ward Six, John J. Hamilton, Eugene M. Tinkham; Ward Seven, Henry G. Chapin, William A. Newton; Ward 8, Oliver E. Hines, Everett E. Stone, William T. Webster.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1902.

MAYOR—RALPH W. ELLIS.

ALDERMEN—President, Fred O. Clapp; Ward One, Fred O. Clapp; Ward Two, Henry W. Fitch; Ward Three, Napoleon L. Byron; Ward Four, William W. Tapley; Ward Five, Henry H. Bosworth; Ward Six, Paul R. Hawkins; Ward Seven, Albert G. Bennett, Jr.; Ward Eight, Everett E. Stone.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, William E. Sanderson; Ward One, Clifford P. Kibbe, William E. Sanderson; Ward Two, Sylvester P. Callanan, Patrick J. Delaney, James E. Dunn; Ward Three, Charles F. Bogardus, George H. McClean; Ward Four, Henry P. Norris, Alfred F. H. Pillsbury; Ward Five, George Nye, Jr., Calvin S. Whitcomb; Ward Six, Joseph C. Allen, John J. Hamilton; Ward Seven, Henry G. Chapin, Edward O. Doten; Ward Eight, Henry S. Keyes, Charles S. Potter, William T. Webster.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1903.

MAYOR—EVERETT E. STONE.

ALDERMEN—President, Napoleon L. Byron; Ward One, William E. Sanderson; Ward Two, Willis A. Ford; Ward Three, Napoleon L. Byron; Ward Four, Henry P. Norris; Ward Five, Francke W. Dickinson; Ward Six, Joseph C. Allen; Ward Seven, Oscar S. Greenleaf; Ward Eight, Oliver E. Hines.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Henry G. Chapin; Ward One, William C. Bartlett, Wayland V. James; Ward Two, Patrick J. Delaney, Thomas J. Burke, William H. Grady; Ward Three, George V. Lovely, Samuel H. Trask; Ward Four, Alfred F. H. Pillsbury, Arthur H. Rogers; Ward Five, William A. Dodge, Fred L. Safford; Ward Six, Clinton Gowdy, Albert R. Green; Ward Seven, Albert W. Allen, Henry G. Chapin; Ward Eight, Henry S. Keyes, Charles S. Potter, Edward P. Blague.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1904.

MAYOR—EVERETT E. STONE.

ALDERMEN—President, Napoleon L. Byron; Ward One, William E. Sanderson; Ward Two, Willis A. Ford; Ward Three, Napoleon L. Byron; Ward Four, Henry P. Norris; Ward Five, Francke W. Dickinson; Ward Six, Frederick S. Ladd; Ward Seven, Oscar S. Greenleaf; Ward Eight, William R. Sessions.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Henry G. Chapin; Ward One, William C. Bartlett, Henry N. Bowman; Ward Two, Thomas J. Burke, William H. Grady, William F. Houlihan; Ward Three, George H. Hadd, Samuel H. Trask; Ward Four, Alfred F. H. Pillsbury, Arthur H. Rogers; Ward Five, William A. Dodge, Fred L. Safford; Ward Six, Albert R. Green, Frank E. Stacy; Ward Seven, Albert W. Allen, Henry G. Chapin; Ward Eight, Henry S. Keyes, Charles S. Potter, Howard O. Buck.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1905.

MAYOR—FRANCKE W. DICKINSON.

ALDERMEN—President, William E. Sanderson; Ward One, William E. Sanderson; Ward Two, Willis A. Ford; Ward Three, William S. Warriner; Ward Four, Henry P. Norris; Ward Five, Joseph P. Falt; Ward Six, Frederick S. Ladd; Ward Seven, Albert W. Allen; Ward Eight, William R. Sessions.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Charles S. Potter; Ward One, Charles Adams, Henry N. Bowman; Ward Two, William F. Houlihan, William H. Grady, Michael J. Scully; Ward Three, George H. Hadd, George H. Crouss; Ward Four, Alfred F. H. Pillsbury, Arthur H. Rogers; Ward Five, William A. Dodge, Winthrop I. Davis; Ward Six, Frank E. Stacy, Henry R. Morrissey; Ward Seven, Fred R. Brown, Edwin G. Remkus; Ward Eight, Charles S. Potter, Howard O. Buck, Ralph Waldo Wight.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1906.

MAYOR—FRANCKE W. DICKINSON.

ALDERMEN—President, William E. Sanderson; Ward One, William E. Sanderson; Ward Two, Willis A. Ford; Ward Three, William S. Warriner; Ward Four, Arthur H. Rogers; Ward Five, Joseph P. Falt; Ward Six, Frederick S. Ladd; Ward Seven, Albert W. Allen; Ward Eight, Charles S. Potter.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Ralph Waldo Wight; Ward One, Charles Adams, Henry N. Bowman; Ward Two, John J. Collins, William H. Grady, Michael J. Scully; Ward Three, George H. Hadd, George H. Crouss; Ward Four, Alfred F. H. Pillsbury, Arthur E. Corbin; Ward Five, William A. Dodge, Winthrop I. Davis; Ward Six, George D. Chamberlain, Henry R. Morrissey; Ward Seven, Fred R. Brown, John Lafayette Scott; Ward Eight, William Addison, Ralph Waldo Wight, Howard O. Buck (resigned).

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1907.

MAYOR—WILLIAM E. SANDERSON.

ALDERMEN—President, Willis A. Ford; Ward One, Henry N. Bowman; Ward Two, Willis A. Ford; Ward Three, Geo. H. Crouss; Ward Four, Arthur H. Rogers; Ward Five, Alfred F. H. Pillsbury; Ward Six, Frederick S. Ladd; Ward Seven, Fred R. Brown; Ward Eight, Charles S. Potter.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Ralph W. Wight; Ward One, Charles Adams, John Henry Curtiss; Ward Two, Geo. C. Connell, Michael J. Scully, John J. Collins; Ward Three, George H. Hadd, Albert A. Mathews; Ward Four, Edward P. Butts, Arthur E. Corbin; Ward Five, William A. Dodge, Winthrop I. Davis; Ward Six, Frank E. Stacy, George D. Chamberlain; Ward Seven, John L. Scott, Edward W. Maynard; Ward Eight, William Addison, Ralph W. Wight, George M. Howe.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1908.

MAYOR—WILLIAM E. SANDERSON.

ALDERMEN—President, Alfred F. H. Pillsbury; Ward One, Henry N. Bowman; Ward Two, Henry Lasker; Ward Three, Geo. H. Crouss, deceased—Nelson L. Elmer; Ward Four, Arthur H. Rogers; Ward Five, Alfred F. H. Pillsbury; Ward Six, George D. Chamberlain; Ward Seven, Fred R. Brown; Ward Eight, Ralph W. Wight.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Frank E. Stacy; Ward One, Charles Adams, John Henry Curtiss; Ward Two, Michael J. Scully, John J. Collins, George C. Connell; Ward Three, George H. Hadd, Albert A. Mathews; Ward Four, Edward P. Butts, John A. Denison; Ward Five, Robert N. Ingersoll, J. Frank Drake; Ward Six, Frank E. Stacy, Harcourt Wesson Bull; Ward Seven, John L. Scott, Edward W. Maynard; Ward Eight, George M. Howe, Jay W. Nickels, John W. Superneaw.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1909.

MAYOR—WILLIAM E. SANDERSON.

ALDERMEN—President, Henry N. Bowman; Ward One, Henry N. Bowman; Ward Two, Henry Lasker; Ward Three, Nelson L. Elmer; Ward Four, Arthur H. Rogers; Ward Five, William A. Dodge; Ward Six, George D. Chamberlain; Ward Seven, John L. Scott; Ward Eight, Ralph W. Wight.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, John A. Denison; Ward One, John Henry Curtiss, Joseph G. Merrick; Ward Two, John J. Collins, James A. Sullivan, John J. Walsh; Ward Three, George H. Hadd, Albert A. Mathews; Ward Four, John A. Denison, Everett E. Belding; Ward Five, Robert N. Ingersoll, J. Frank Drake; Ward Six, Frank E. Stacy, Harcourt Wesson Bull; Ward Seven, Julian R. Albee, Edward T. Broadhurst; Ward Eight, Charles M. Goodwin, John G. Maxfield, Jay W. Nickels.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1910.

MAYOR—EDWARD H. LATHROP.

ALDERMEN—President, Henry N. Bowman; Ward One, Henry N. Bowman; Ward Two, Henry Lasker; Ward Three, Nelson L. Elmer; Ward Four, John A. Denison; Ward Five, William A. Dodge; Ward Six, George D. Chamberlain; Ward Seven, John L. Scott; Ward Eight, Ralph W. Wight.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, J. Frank Drake; Ward One, Joseph G. Merrick, Wilfred S. Armitage; Ward Two, James A. Sullivan, John J. Walsh, Jeremiah McCarthy; Ward Three, Albert A. Mathews, George W. Streeter; Ward Four, Everett E. Belding, George Marston Leonard; Ward Five, Robert N. Ingersoll, J. Frank Drake; Ward Six, Matthew H. Farrell, Patrick W. Russell; Ward Seven, Julian R. Albee, Edward T. Broadhurst; Ward Eight, Charles M. Goodwin, John G. Maxfield, Miller J. Meeker.

CLERK—H. S. Gilbert (resigned), George J. Clark.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1911.

MAYOR—EDWARD H. LATHROP.

ALDERMEN—President, Ralph W. Wight; Ward One, Edward S. Goldthwaite; Ward Two, Henry Lasker; Ward Three, H. Goodman Waters; Ward Four, John A. Denison; Ward Five, William A. Dodge; Ward Six, Frank E. Stacy; Ward Seven, Charles B. Hitchcock; Ward Eight, Ralph W. Wight.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, J. Frank Drake; Ward One, Wilfred S. Armitage, George S. Cook; Ward Two, John P. Cannon, William H. Grady, Jeremiah McCarthy; Ward Three, George W. Streeter, George W. D. Upton; Ward Four, Everett E. Belding, George Marston Leonard; Ward Five, Charles A. Allbe, J. Frank Drake; Ward Six, Matthew H. Farrell, Patrick W. Russell; Ward Seven, Julian R. Albee, Edward T. Broadhurst; Ward Eight, Charles M. Goodwin, John G. Maxfield, Miller J. Meeker.

CLERK—George J. Clark.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1912.

MAYOR—EDWARD H. LATHROP.

ALDERMEN—President, John A. Denison; Ward One, Edward S. Goldthwaite; Ward Two, Henry Lasker; Ward Three, H. Goodman Waters; Ward Four, John A. Denison; Ward Five, William A. Dodge; Ward Six, Frank E. Stacy; Ward Seven, Charles B. Hitchcock; Ward Eight, John G. Maxfield.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, J. Frank Drake; Ward One, George S. Cook, Charles J. Jefferson; Ward Two, John P. Cannon, William H. Grady, John J. Walsh; Ward Three, George W. Streeter, George W. D. Upton; Ward Four, Robert P. Marsh, George W. Pike; Ward Five, Charles A. Allbe, J. Frank Drake; Ward Six, Henry Martens, Patrick W. Russell; Ward Seven, Julian R. Albee, Edward T. Broadhurst; Ward Eight, Giles Blague, Charles M. Goodwin, George A. Lanciaux.

CLERK—George J. Clark.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1913.

MAYOR—JOHN A. DENISON.

ALDERMEN—President, Henry Lasker; Ward One, George S. Cook; Ward Two, Henry Lasker; Ward Three, George H. McClean; Ward Four, Harry G. Webster; Ward Five, Robert N. Ingersoll; Ward Six, Frank E. Stacy; Ward Seven, Julian R. Albee; Ward Eight, John G. Maxfield.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Edward T. Broadhurst; Ward One, Louis G. Erickson, Charles J. Jefferson; Ward Two, William H. Grady, John H. Morgan, John J. Walsh; Ward Three, Nelson W. Haskell, George W. Streeter; Ward Four, Robert P. Marsh, George W. Pike; Ward Five, Charles A. Allbe, Harold A. Wheat; Ward Six, Henry Martens, Thomas F. McGlynn (resigned), Patrick W. Russell; Ward Seven, Albert B. Franklin, Jr., Edward T. Broadhurst; Ward Eight, Giles Blague, George A. Lanciaux, William B. Sleigh.

CLERK—George J. Clark.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1914.

MAYOR—JOHN. A. DENISON.

ALDERMEN—President, Frank E. Stacy; Ward One, George S. Cook; Ward Two, Albert P. Hare; Ward Three, George H. McClean; Ward Four, Harry G. Webster; Ward Five, Robert N. Ingersoll; Ward Six, Frank E. Stacy; Ward Seven, Julian R. Albee; Ward Eight, Giles Blague.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Edward T. Broadhurst; Ward One, Louis G. Erickson, Lawrence P. Griffin; Ward Two, William H. Grady, John H. Morgan, John R. Doyle; Ward Three, Nelson W. Haskell, Fred A. Morrill; Ward Four, Robert P. Marsh, Albert D. Shaw; Ward Five, William Foster, Harold A. Wheat; Ward Six, Henry Martens, John J. O'Hare; Ward Seven, Albert B. Franklin, Jr., Edward T. Broadhurst; Ward Eight, Clinton W. Cowles, George A. Lanciaux, William B. Sleigh.

CLERK—George J. Clark.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1915.

MAYOR—FRANK E. STACY.

ALDERMEN—President, George S. Cook; Ward One, George S. Cook; Ward Two, Albert P. Hare; Ward Three, Nelson W. Haskell; Ward Four, Harry G. Webster; Ward Five, Samuel C. Hall; Ward Six, Henry Martens; Ward Seven, Albert B. Franklin, Jr.; Ward Eight, Giles Blague.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Edward T. Broadhurst; Ward One, Emil J. Erard, Lawrence P. Griffin; Ward Two, William H. Grady, William J. Granfield, John R. Doyle; Ward Three, William L. Fuller, Fred A. Morrill; Ward Four, Robert P. Marsh, Albert D. Shaw; Ward Five, Seth H. Barlow, William Foster; Ward Six, Silvio Martinelli, William C. B. Merriam; Ward Seven, Edward T. Broadhurst, Henry H. Caswell; Ward Eight, Clinton W. Cowles, George A. Lanciaux, Albert B. Sanderson.

CLERK—George J. Clark.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1916.

MAYOR—FRANK E. STACY.

ALDERMEN—President, George S. Cook; Ward One, George S. Cook; Ward Two, Albert P. Hare; Ward Three, Nelson W. Haskell; Ward Four, Robert P. Marsh; Ward Five, Samuel C. Hall; Ward Six, Henry Martens; Ward Seven, Albert B. Franklin, Jr.; Ward Eight, Giles Blague.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Albert D. Shaw; Ward One, Emil J. Erard, Lawrence P. Griffin; Ward Two, William H. Grady, William J. Granfield, John R. Doyle; Ward Three, William L. Fuller, Fred A. Morrill; Ward Four, Christopher G. Simpson, Albert D. Shaw; Ward Five, Seth H. Barlow, William Foster; Ward Six, Silvio Martinelli, Ambrose H. Reynolds; Ward Seven, Alfred H. Chapin, Henry H. Caswell; Ward Eight, Clinton W. Cowles, G. Clarence A. Fuller, Albert B. Sanderson.

CLERK—George J. Clark.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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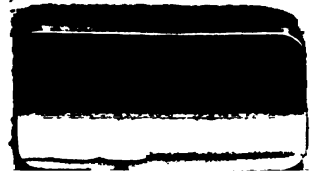

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